
MALDEN HOUSING NEEDS ASSESSMENT

METROPOLITAN AREA PLANNING COUNCIL
JUNE 2019

TABLE OF CONTENTS

Table of Contents	1
Introduction	2
Malden’s Changing Housing Landscape	2
Engagement Process	4
Technical Process	6
Housing Needs Assessment	10
Community	10
Housing	19
Affordability	22
Projected Housing Demand	29
Projected Population Growth	29
Projected Housing Demand	31
Select Development Constraints	34
Land Constraints	34
Water and Wastewater	37
Parking Demand	38
Conclusion	39
Appendix	43
Land Constraints Methodology	43
Technical Documentation of GLAM	46

INTRODUCTION

MALDEN'S CHANGING HOUSING LANDSCAPE

Located north of the Mystic River and less than 6 miles outside of Boston, Malden has one of the most culturally diverse populations in the Commonwealth, and has become a highly desirable community due to its proximity to the region's economic centers, transit choices that include the MBTA Orange Line and Haverhill Commuter Line, dependable public schools, and landscape and historic architecture. In recent years, following the Great Recession of 2008, Malden and the rest of the Greater Boston region have experienced a surge in housing prices as the economy rebounded and jobs were created faster than homes for new workers. The disconnect between this increased demand and the housing supply shortage has resulted in tremendous competition for the limited available housing. This competition has driven up home sale prices and rents to the point where those in Greater Boston are now among the highest of any large metropolitan area across the country.

In response to demand, many municipalities in the region have been working to add more housing. In recent years, Malden Center has seen hundreds of new market-rate units as part of mixed-use developments, and nearly one thousand units have been constructed on the eastern side of the city at the former Rowe's Quarry on the Malden-Revere border. None of these units are Affordable by deed restriction. Recent new housing developments serve higher-income residents, but primarily do not provide housing for lower- or moderate-income residents. Some residents and City officials are concerned about the changes that can accompany new housing development, and how the city's infrastructure and the community's cohesion will be impacted by new residents. Starting in 2016, the City implemented a 2-year housing moratorium on multifamily development of 5 or more units across Malden (with the exception of the Central Business District, CBD) to study these impacts; the moratorium was lifted at the end of 2017. While permitting was reduced during that time period, those units that were permitted prior to the moratorium did come on the market. Meanwhile, median rent in two-bedroom units, adjusted for inflation, increased from \$1,901 to \$2,012 (3%) and median home sale price of single-family homes and condominiums, adjusted for inflation, increased from \$379,285 to \$435,000 (15%) and \$271,650 to \$319,500 (18%), respectively. See Table 1. This would indicate that reducing or stopping development did not stabilize housing costs in Malden.

Table 1 Median Housing Costs, Malden, 2012-2018

	SINGLE-FAMILY SALES MEDIAN (adjusted)	SINGLE-FAMILY SALES % INCREASE	CONDO SALES MEDIAN (adjusted)	CONDO SALES % INCREASE	2-BEDROOM MEDIAN RENT (adjusted)	2-BEDROOM RENT % INCREASE
2012	\$293,057	4%	\$205,006	4%	\$2,008	
2013	\$328,024	12%	\$208,404	2%	\$2,072	3%
2014	\$334,859	2%	\$237,802	14%	\$1,967	-5%
2015	\$366,148	9%	\$259,008	9%	\$1,920	-2%
2016	\$379,285	4%	\$271,650	5%	\$2,013	5%
2017	\$435,000	15%	\$319,500	18%	\$2,078	3%
2018	\$459,005	6%	\$338,856	6%	\$2,070	0%

Source: Zillow Rental Listings and Warren Group, Inc.; adjusted for inflation with BLS Consumer Price Index

The high-priced housing market affects Maldonians in different ways. Homeowners have seen higher housing values, a benefit if they want to sell; but many can't afford another home in the community. Many residents are cost burdened or severely cost burdened, paying more than 30% or even 50% of their incomes on housing. The risk of displacement for lower- and moderate-income residents has increased. Homelessness is an issue affecting some, including school children, according to local organizations active on these issues. And current renters interested in buying a home struggle to do so, while those hoping to downsize have a hard time finding a suitable home at a price they can afford. Moderate- and low-income renters, lower-income homeowners, and elderly Maldonians on fixed incomes are all particularly vulnerable to housing instability in this market.

Some of the residents and City officials who attended focus groups as part of this planning process expressed concern about development impacts. Specifically, some worry that greater production of multifamily housing units will lead to increased traffic, insufficient public services, reduced civic participation, and a decreased sense of community. Meanwhile, others expressed apprehension that new higher-priced development will bring gentrification and displacement of longtime residents, especially communities of color.

But more often we heard from Maldonians who welcome new development, including Affordable Housing, and new residents who add to the city's diversity and support local businesses.

The demand for housing in Greater Boston and Malden specifically, and the housing instability that accompanies it, is not likely to dissipate in the coming years. To mitigate displacement risk and cost burden and to meet the housing needs of the community, the City should expand and diversify its housing supply, with a strong focus on adding more deed-restricted Affordable Housing units for lower-income residents and naturally-occurring affordable housing of a variety of types for moderate- and middle-income residents when possible. Going forward, Malden's primary housing challenge will be balancing housing demand from new residents and meeting the housing needs of current Maldonians who wish to remain and thrive in their community.

ENGAGEMENT PROCESS

To help understand unmet housing need and demand, the City enlisted the Metropolitan Area Planning Council (MAPC) to provide technical assistance. After an MAPC analysis showed that Malden could invoke Safe Harbor from development under M.G.L. Chapter 40B without needing a Housing Production Plan (see the City's General Land Area Minimum documentation dated January 30, 2019, in the appendix), the City revised the scope to focus on understanding the housing needs of the Malden community. The process for this Housing Needs Assessment (HNA) ran from September 2018 to May 2019. Guided by the City of Malden and the Malden Redevelopment Authority, MAPC undertook rigorous analysis of demographic and housing market data. This work was shared with and informed by a HNA Advisory Committee and resident input. Advisory Committee meetings, focus groups, and interviews provided the MAPC project team with insight into housing needs, community concerns around housing, and housing priorities.

ADVISORY COMMITTEE

The Malden Redevelopment Authority and the City of Malden organized an Advisory Committee comprised of residents, community group representatives, civil servants, and public officials to help guide the HNA process. The Advisory Committee members supported the planning process by identifying key housing stakeholders and sharing local knowledge of housing need and demand, community concerns around housing, and potential barriers to housing development.

The 10 Advisory Committee members are:

1. Neal Anderson, Ward 7 City Councilor
2. Deborah Burke, Ex-Officio member, Executive Director, Malden Redevelopment Authority
3. Stephen Finn, Executive Director, Malden Housing Authority
4. Maria Luise , Ex-Officio member, Special Assistant to Mayor Gary Christenson
5. Karen Lynch, resident, Mass Senior Action Council
6. Josh O'Dor, resident
7. Ryan O'Malley, Ward 4 City Councilor

8. Michelle Romero, Malden City Planner
9. Ose Schwab, resident, local artist, business owner
10. Anna Tse, resident, YMCA Board, Community Preservation Committee

The Advisory Committee met three times over the course of developing this HNA.

FOCUS GROUPS

Focus groups bring together a small but demographically diverse group of people to gather input on a specific topic. Four focus groups were conducted at the beginning of the HNA process. Through them, the MAPC project team learned about the city's current housing conditions, including housing stock, recent development trends, and issues pertaining to affordability and development impacts. There were 7-to-12 people in each focus group, and each session lasted approximately 1.5 hours.

The four focus groups included:

- Representatives from local housing-related organizations
- Market-rate and mixed-income housing developers
- Renters and homeowners from each city ward
- Local realtors
- City Councilors

INTERVIEWS

In-depth interviews gather more detailed information about a specific topic from knowledgeable individuals. Three in-depth interviews were conducted as part of this process. The interviews provided the project team with local data and a greater understanding of housing need and availability, particularly for very low-income households; insight into the Malden economy and economic development goals; and infrastructure capacity.

Interviewed organizations and individuals included:

- Housing Families, a local organization working with homeless and at-risk families
- ABCD, a local service provider for residents living in poverty
- Malden Department of Engineering
- Malden Business Development Officer
- Local restaurant owner

TECHNICAL PROCESS

DATA SOURCES

A number of quantitative data sources were used for this plan: the U.S. Census, including Decennial Census, American Community Survey (ACS), and Comprehensive Housing Affordability Strategy (CHAS) data; City data; and real estate property and transaction databases. The Advisory Committee and the City of Malden provided insight and guidance to verify data estimates from ACS, which can be less precise (since they are estimates rather than counts), but which are more recent than Decennial Census data. All sources for data are cited throughout this report, primarily in tables and figures. Unless otherwise stated, data appearing in text can be attributed to the 2012-16 ACS Below is a brief explanation of the U.S. Census data sources used for this plan.

- Census of Population and Housing: Demographic and housing counts. This report uses data from the 2000 and 2010 Census.
- American Community Survey (ACS): 5-year demographic and housing estimates for large and small geographic areas based on monthly surveys. This plan primarily uses data from the 2012-2016 ACS survey, the most recent available data at the time of the report's start. Following best practice, percentages are used in lieu of numbers for most estimates data to avoid sharing numbers that may not be precise since they are based on a sample. In late 2018 after this process began, the results from the 2013-17 ACS survey were released. A comparison of the data showed that these most recent data are almost identical to that of 2012-16.
- Annual Estimates of the Resident Population: Annual population estimates based on the 2010 Census. This plan uses the 2018 estimates.
- U.S. HUD Comprehensive Housing Affordability Strategy Data (CHAS): Custom tabulations of ACS data that demonstrate the extent of housing problems and housing need, particularly for low-income households. This plan uses the most recent available CHAS data from 2011-2015.
- North American Industry Classification System (NAICS): Standard system used by Federal statistical agencies in classifying business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy. This report uses the 2017 NAICS survey results.

CONTEXT COMMUNITIES

It can be hard to understand the meaning of any individual data point. For example, is the rate of low-income households in Malden low, high, or typical? Context communities provide a framework for understanding local Malden data used in the HNA by shedding light on how Malden's community and housing compares or differs to nearby cities. Context communities were selected at the start of the analysis with assistance from the Advisory Committee. Committee members were asked what communities they think Malden is similar to and which ones they aspire to be more like. Members cited Everett, Quincy, Melrose, Cambridge, and Somerville as similar communities; aspiring communities included Newton, Brookline, Cambridge again, Lowell, and Salem. Using this feedback, the project team assessed these and several other communities to see how they compare to Malden's key demographic and housing statistics. A

system was used to rank communities based on their similarity to Malden: If a community fell within range of Malden, it received one point. Communities that received eight or more points were selected as context communities.

The six context communities are:

- Everett
- Lynn
- Quincy
- Revere
- Salem
- Somerville

See Table 2 below for some key statistics on Malden and each of the context communities. Any one community may vary from Malden on any one data point; but overall these seven communities have some notable common themes and attributes.

Table 2 Malden and Context Communities

	DEMOGRAPHICS						HOUSING STOCK	HOUSING COST		HOUSING TENURE	HOUSING AFFORDABILITY		
	Population increase 2000 to 2017	Population projected increase 2017 to 2030	White population	Non-family households	Change in school district enrollment 2010 to 2016	Median household income	Housing structures with 3+ units	Median price single-family house	Median 2-bedroom rent	Renter households	Subsidized Housing Inventory	Low-income households (<80% AMI)	Cost-burdened low-income households
EVERETT	22%	19%	48%	30%	15%	\$52,457	44%	\$401,000	\$2,200	61%	6.4%	62%	69%
LYNN	6%	6%	39%	34%	13%	\$50,774	45%	\$315,000	\$1,650	56%	12.4%	61%	64%
MALDEN	9%	17%	49%	40%	1%	\$60,085	44%	\$435,000	\$2,100	59%	10.1%	56%	67%
QUINCY	7%	16%	61%	47%	1%	\$64,890	48%	\$435,800	\$2,100	53%	9.6%	46%	68%
REVERE	14%	25%	58%	40%	20%	\$51,482	38%	\$362,500	\$2,340	52%	8.1%	59%	68%
SALEM	7%	4%	74%	46%	-17%	\$61,093	50%	\$375,000	\$2,100	52%	12.8%	50%	67%
SOMERVILLE	5%	17%	70%	57%	2%	\$78,673	53%	\$720,000	\$2,500	65%	9.7%	42%	67%

SOURCE FOR PROJECTIONS

Projected population and housing demand are important considerations in planning for the future. This analysis uses 2030 projections created by MAPC. Projections were guided by advisory opinion from academic experts, state agencies, regional planning agencies, and member municipalities. MAPC also reviewed reports from other regions nationwide prior to creating the projections to assess accuracy and identify opportunities for improvement. MAPC projections are used by local, regional, and state agencies to set policies and make investments that anticipate the region's future needs.

Data sources for the projections include Decennial Census data from 1990, 2000, and 2010; ACS data from 2005 to 2011; fertility and mortality information from the Massachusetts Community Health Information Profile (MassCHIP); housing production information from the Census Building Permit Survey database; and MAPC's Development Database.

For more information on the methodology used for these projections, go to <http://www.mapc.org/wp-content/uploads/2017/08/MetroBoston-Projections-Appendix-F-Formulas.pdf>.

In addition, MAPC used housing demand projections developed for the Regional Housing Taskforce of the Metropolitan Mayors Coalition, of which Malden is a member. This work considers projections of employment growth, labor force, and demographic change in order to project housing demand. More information on this methodology can be found here https://housingtaskforce.mapc.org/assets/documents/MAPC_MMC_Methods.pdf.

HOUSING NEEDS ASSESSMENT

COMMUNITY

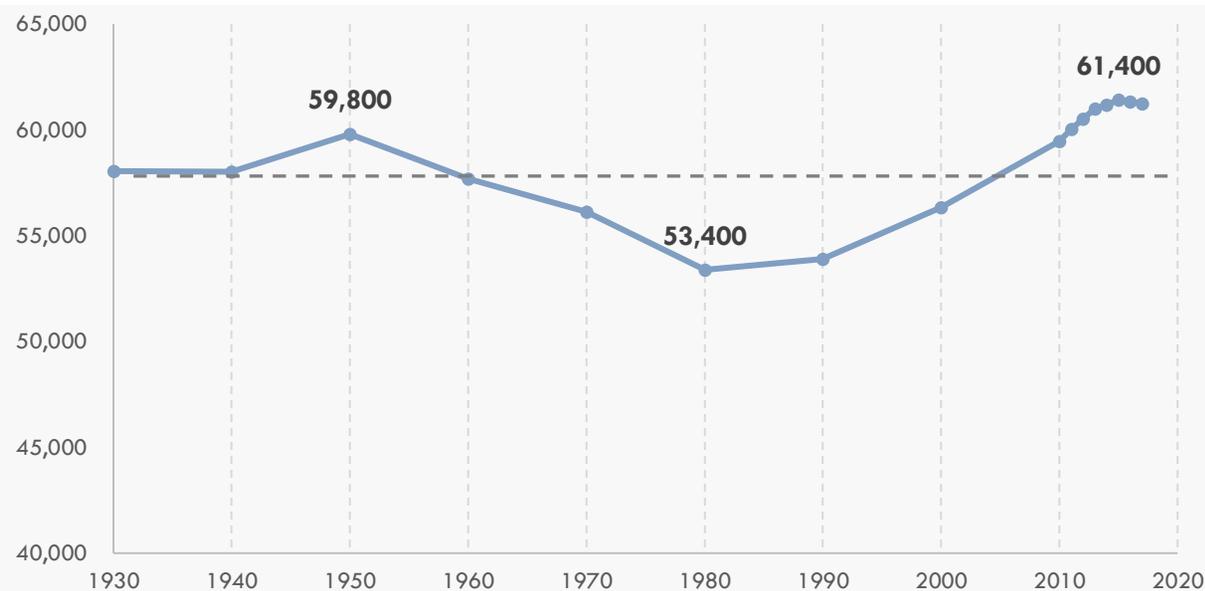
The Malden community has grown over the years, increasing in racial and ethnic diversity and becoming younger. Today, a slight majority of households in the city are families and a slight majority are renters, but there is a mix of both household types and tenures. Just over half of all Malden households are low income, including the vast majority of elderly residents.

POPULATION

Historical Population Growth and Current Population Estimates

Malden's population has increased in recent decades, but even at a historic high, the city is still not much bigger than it was at its peak in 1950. That year, Malden's population was 59,800, but the next decades saw steady decline in a pattern similar to many neighboring urbanized communities. By 1980, population had dropped to 53,400. Since then, the population has risen each decade. In 2011, Malden's population surpassed its 1950 level. See Figure 1.

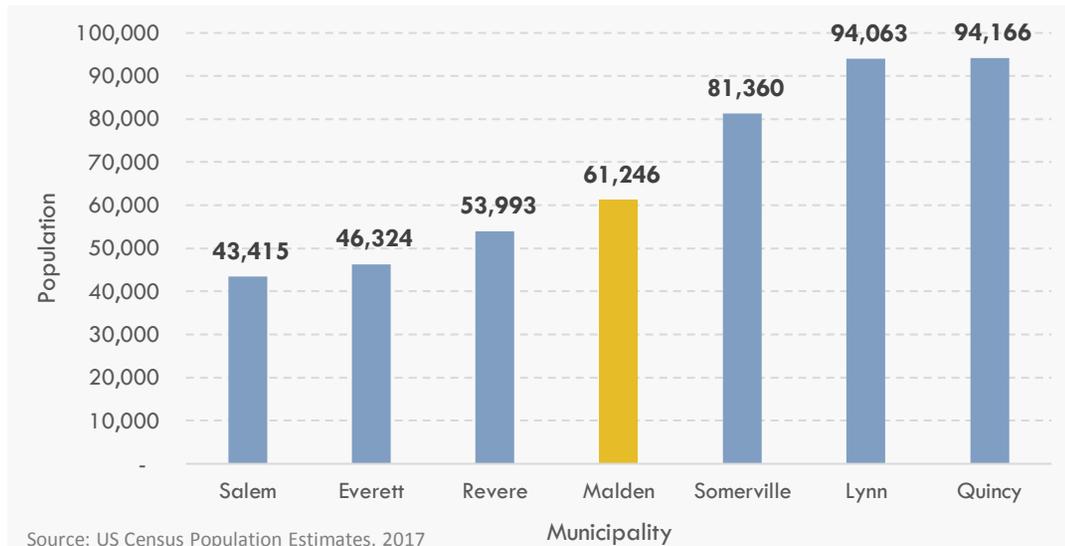
Figure 1 Population, Malden, 1930-2017



Source: U.S. Decennial Census, U.S. Population Estimates

According to U.S. Census estimates, approximately 61,246 people live in Malden as of 2017, a 9% (4,906 people) increase from 2000. Like the earlier population decline, this recent population growth is not unique. Most communities in Greater Boston's Inner Core have seen an increase in population due in part to the region's economic success. During the same time period, the MAPC region's population increased by 10% and the Commonwealth's by 8%. Compared to populations of other cities in the area, Malden is a mid-size city. See Figure 2.

Figure 2 Population, Malden and Context Communities, 2017



Importantly, there are reasons to believe that Malden's current population is actually higher than U.S. Census estimates. A key input to those population estimates is building permit data reported to the Census Bureau's Residential Construction Branch in response to a monthly survey sent to City staff. Like some other municipalities, Malden's reporting to the Building Permit Survey has been incomplete and inconsistent; the City responded to the Census Bureau reliably in 2010 and 2011; provided no information from 2012 through 2015; and provided information for only a few months of the year in 2016 and 2017. In total, Malden reported 71 permitted housing units since 2010, a fraction of the 2,148 units actually permitted from 2010 through 2018 according to data provided by the City directly to MAPC for the purposes of this study. As a result, the Census Bureau has an incomplete picture of Malden's housing stock and is therefore likely underestimating the city's population.

MAPC's analysis, based on building permit data, occupancy rates, and household size, generated a new, higher estimate of the city's current population. By accounting for the 2,148 units added to the city's housing supply through 2018, we estimate that the city's population was approximately 67,800 in 2018, about 6,800 people more than the official Census estimate of 61,000 in 2018 based on incomplete building permit data.¹

Race + Ethnicity

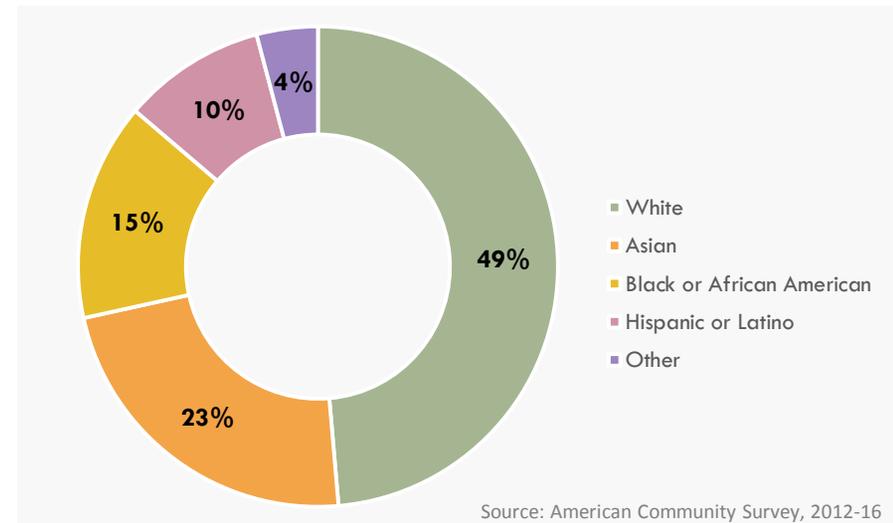
With population growth, Malden has become more racially and ethnically diverse in recent years. The percent of non-White residents has increased 69% since the 2000 U.S. Decennial Census, when non-White residents comprised just 30% of Malden's population. More recently, slightly more than half (51%) of residents identified as non-White in the 2012-16 ACS survey. See Figure 3. Only Everett (52%) and Lynn (61%) have a higher percentage of non-White residents. Malden is also significantly more diverse than the overall MAPC region (30% non-White) and the Commonwealth (26% non-White).

Asian residents are 45% of all non-White residents, Black or African American residents are 29%, followed by Hispanic or Latino residents at 19%. The remaining 8% of non-White households consists of residents who identify as two or more races, or some other race alone.

Age Groups

Almost half (48%) of all Maldonians are age 34 or younger. the rate of younger residents is higher than the Commonwealth's (45%) and lower than the context communities of Everett (50%), Lynn (52%), and Somerville (58%). Malden's youngest residents, age 0 to 4, are also the smallest age group, comprising just 5% of the population, but school-age children 5 to 19

Figure 3 Population by Race and Ethnicity, Malden, 2012-16



¹ To estimate population, MAPC first calculated the number of housing units in Malden by adding the number of housing units permitted between 2010 and 2018 (2,148) to the housing units recorded in the 2010 U.S. Census (25,161) for a total of 27,309 housing units. Next, MAPC translated housing units into households by multiplying housing units (27,309) by the 2010 U.C. Census Occupancy Rate for Malden of 94%. This yielded a total of 25,698 households. Finally, MAPC approximated population by multiplying the number of households (25,698) by average household size from the latest available American Community Survey figure for Malden, 2.64. This generated a population estimate of 67,842, which MAPC rounded to the nearest hundredth, 67,800.

represent 15% of the population. Maldonians age 20 to 34 years comprise 28% of the population, as do those age 35 to 54. Residents age 55 to 64 represent 12% of the community, 6% of residents are age 65 to 74, and another 6% are 75 years old or more.

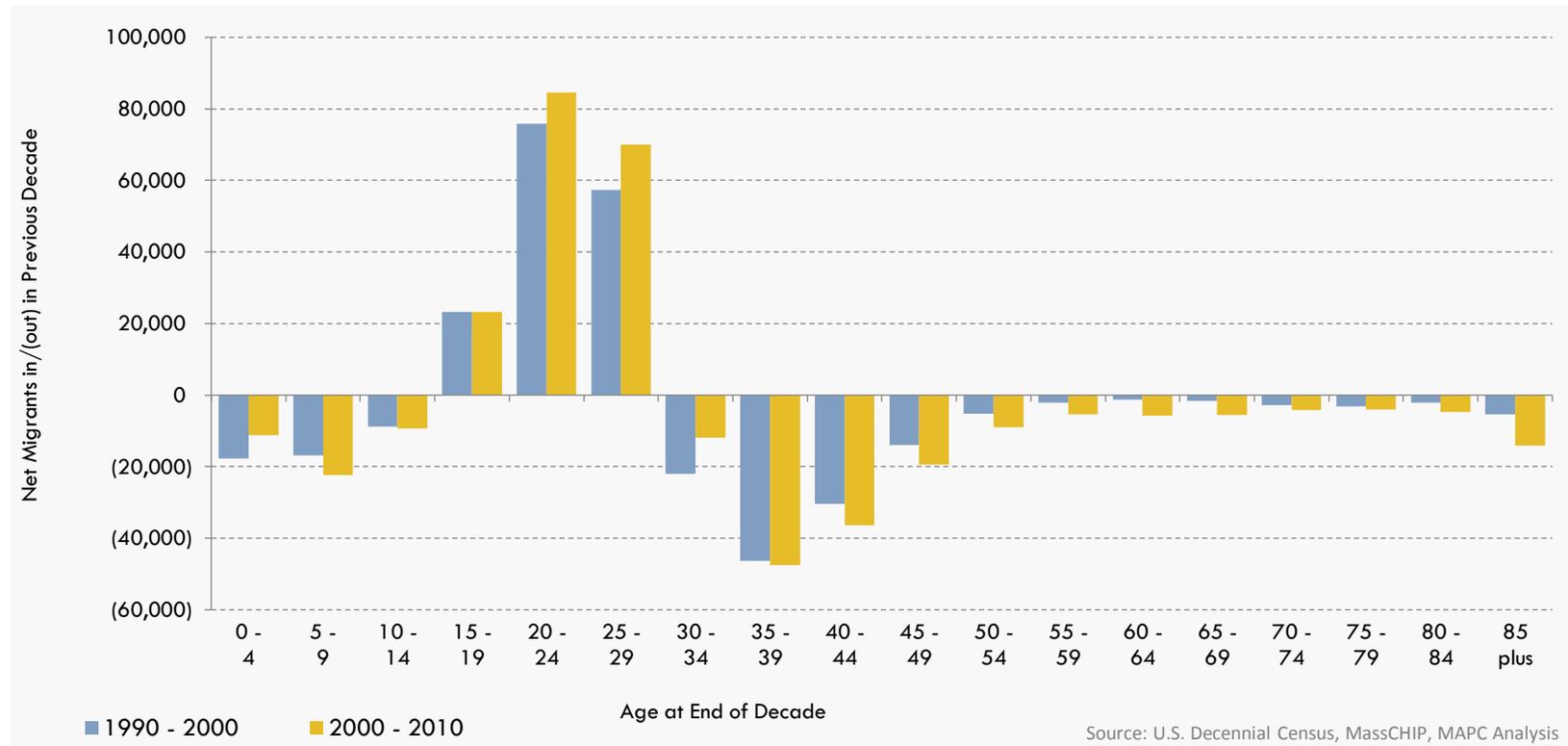
MIGRATION TRENDS

Young adults have been moving into the city in recent years, and older adults have been leaving at a relatively modest rate.

Figure 4 below depicts estimated migration by age for the past two decades, after accounting for births and deaths of residents.

Positive values for a given age group indicate that more people moved in than moved out; negative values indicate net outmigration.

Figure 4 Net Migration by Age, Malden, 1990-2010



Between 1990 and 2010, young adults between the ages of 20 and 34 moved (as a group) into Malden in much greater numbers than they moved out. From 2000 to 2010, there was a net gain of nearly 6,000 residents in this age range. However, as they grow older, many residents move away. The city saw a net loss of 2,800 residents age 35 to 49 (as a group) over the period 2000 to 2010, and with them went over 2,000 children under the age of 15. During the 1990s, net migration for all cohorts age 50 to 80 was near zero, with an overall net gain of 100 residents. In the following decade, the city saw net outmigration of over 1,500 residents 50 years or older.

Even with this in-migration, most Malden residents (83%) have lived in their home for at least one year. Of the 17% of residents who have moved in the last year, 28% moved within Malden. Many of the newer Maldonians have moved from nearby; 16% of new residents moved from a different place in Middlesex County. But 22% of Malden residents moved from a different county in Massachusetts, 14% of new residents moved from a different state, and 20% moved from abroad. While the latter group has increased 94% from the 2005-09 to the 2012-16 ACS period, the total percentage of residents from abroad remains small at about 3.5%.

For context, the percent of new residents to Malden (17%) is higher than that for the MAPC region (14%) and the Commonwealth (13%). At 20%, the rate of new Malden residents who have moved from abroad is also significantly higher than that of the broader MAPC region or the Commonwealth (both 1%).

HOUSEHOLDS

The Malden population forms an estimated 25,700 households, a 12% increase from 23,000 in 2000.² All persons living in a single unit are considered a household. If household members are related by blood or law, they are a family. Other types of households include unmarried couples without children, roommates, or people living alone – these household types are called non-family households. The number of households is based on the addition of the 2010 Census figure of 25,161 units plus the 2,148 housing units permitted since 2010, multiplied by the 2010 Census occupancy rate of 94.1%.

Household Type

A majority of Malden households are families (61% of all households). This rate is higher than in several context communities we analyzed, including Somerville (43%), Quincy (53%), and Salem (54%); although Lynn and Everett have higher rates of family households at 66% and 70%, respectively. The percent of family households in Malden is also slightly lower than the Commonwealth's 64%. As may be expected, family households in Malden tend to be comprised of more people than other

² The number of households is based on the addition of the 2010 Census figure of 25,161 units plus the 2,148 housing units permitted since 2010, multiplied by the 2010 Census occupancy rate of 94.1%.

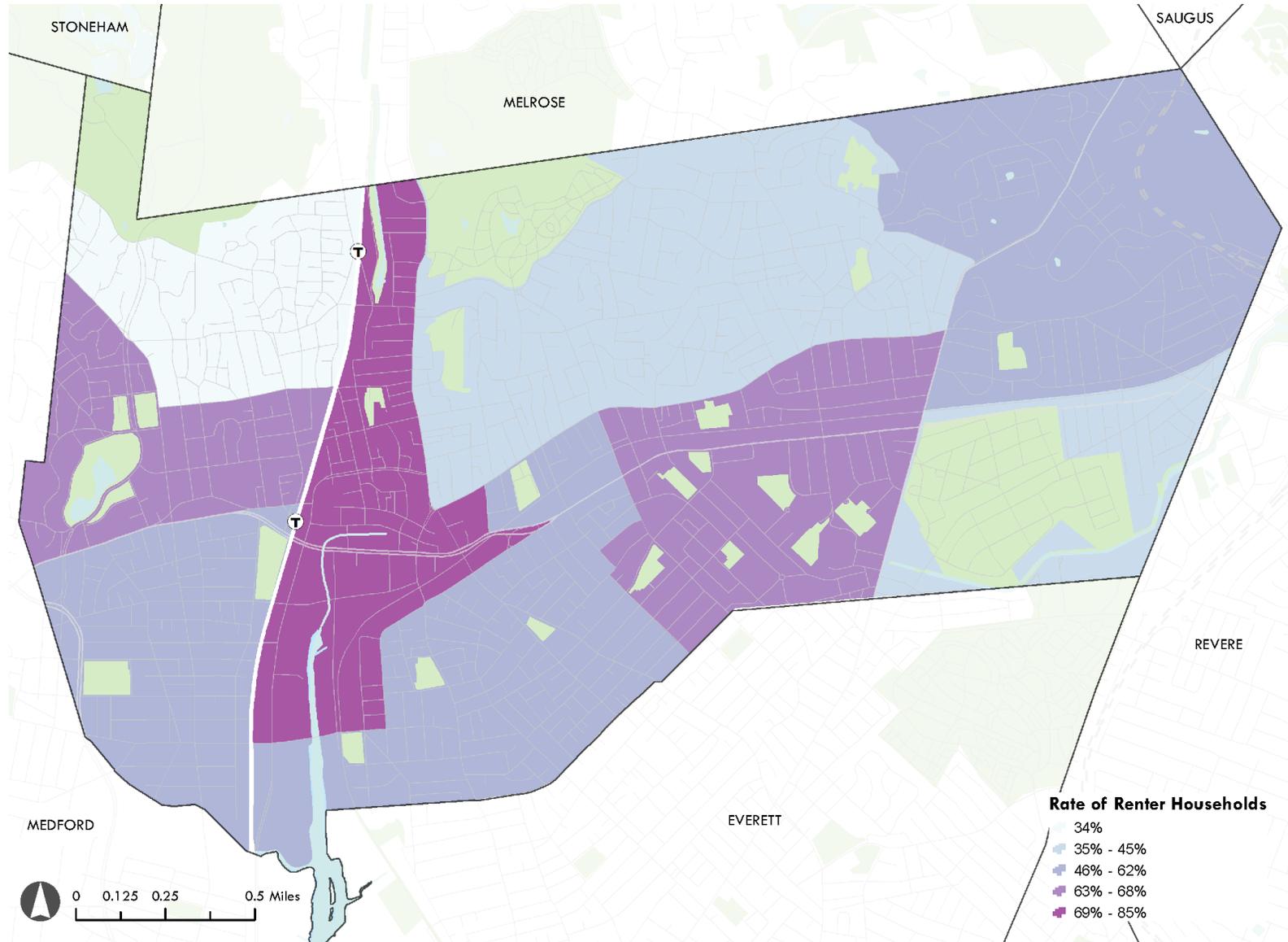
household types: 64% of family households have three or more people, while about 72% of non-family households in Malden have only one person (the rest may be roommates and other combinations of unrelated people).

Household Tenure

The majority of households in Malden occupy rental units. About 59% of all households in Malden are renters. Malden's rate of renters is lower than in some context communities including Everett (61%) and Somerville (65%), but higher than the MAPC region (42%) and the Commonwealth (38%). Generally, households that rent are at a higher risk of displacement in hot housing markets like these, as they have less control over rent increases and changes in management. Because frequency of renters varies by block group in Malden, with downtown Malden having the highest rate of renters and the West End neighborhood the fewest, displacement risk varies by neighborhood. See Figure 5.

Displacement also impacts some race and age groups more than others. While all race and ethnicity groups have a higher percentage of renters than homeowners, non-White Hispanic households are more likely to rent than any other race or ethnicity (77%). Meanwhile, White households have the highest rate of homeownership (45%). Younger householders age 15 to 24 have the highest rate of renters (87%) followed by those age 25 to 34 (79%), while householders age 60 to 64 have the highest rate of homeownership (64%) followed closely by those age 55 to 59 (63%).

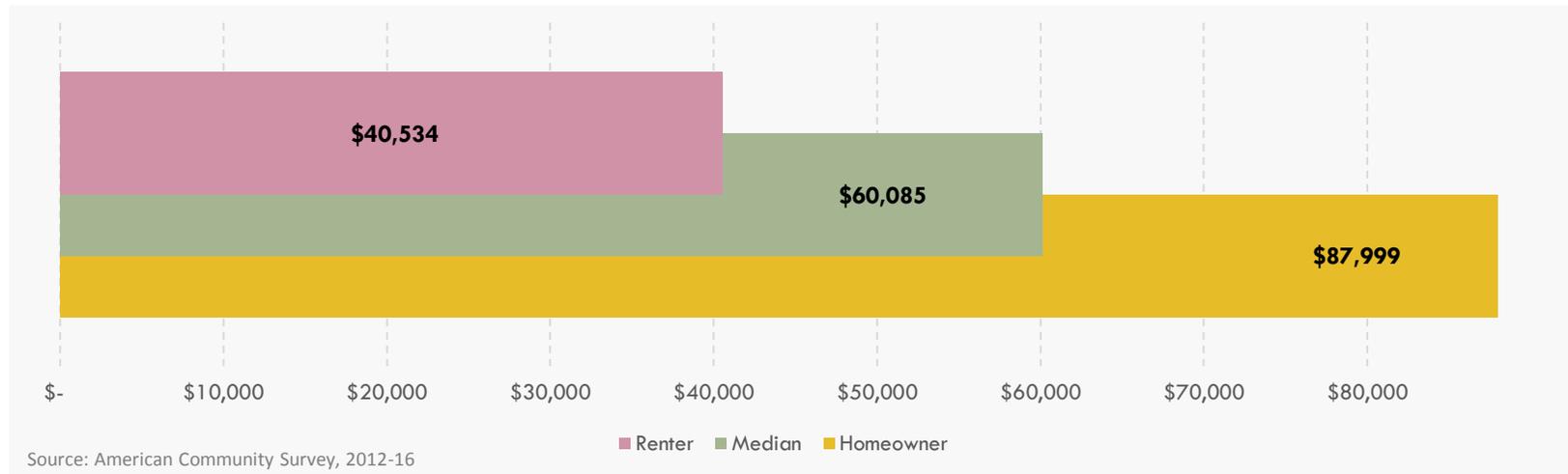
Figure 5 Rate of Renters by Block Group, Malden, 2012-16



Household Income

The median household income in Malden is \$60,085, but varies considerably by household type, tenure, and race. For families, median household income is \$71,064, significantly higher than the non-family median income of \$37,158. See Figure 6. A similar discrepancy exists between homeowners and renters: median homeowner income is \$87,999 and median renter income is \$40,534. There are also differences by race: Black households have the lowest median income at \$48,984, while Asian households have the highest median income at \$61,215.³

Figure 6 Household Income by Tenure, Malden, 2012-16



Malden’s median income is lower than the Commonwealth’s median of \$70,954 and just over half of the U.S. Department of Housing and Urban Development’s (HUD) Median Family Income (MFI) estimate for this area of \$107,800.⁴ MFI and household size are used by HUD to establish income tiers, which determine deed-restricted Affordable Housing eligibility and maximum costs to occupy those units. See Table 3.

³ The 2012-16 ACS margin of error for Black households is higher than other races.

⁴ The U.S. HUD Median Family Income (MFI) estimate for Malden is based on data for the city and all other communities in the Boston-Cambridge-Quincy, MA-NH HUD Metro FMR Area. The MFI used in this plan is for 2018, but based on ACS data from 2011-15. For more information on the MFI, visit: <https://www.huduser.gov/portal/datasets/il/il2018/2018MedCalc.odn>.

Table 3 HUD Median Family Incomes, Malden and the Greater Boston Area, 2018

HOUSEHOLD GROUP	INCOME PERCENT	INCOME LIMITS			
		1 Person	2 People	3 People	4 People
Extremely low-income households	less than 30% of the HUD MFI	\$22,650	\$25,900	\$29,150	\$32,350
Very low-income households	30% to 50% of the HUD MFI	\$37,750	\$43,150	\$48,550	\$53,900
Low-income households	50% to 80% of the HUD MFI	\$56,800	\$64,900	\$73,000	\$81,100
Moderate-income households	80% to 100% of the HUD MFI	\$71,000*	\$81,125*	\$91,250*	\$101,375*
High-income households	more than 100% of the HUD MFI	>\$107,800**			

* HUD income limit unavailable for moderate-income households, estimate created by MAPC.

** HUD does not calculate middle-income by household size.

Source: U.S. Department of Housing and Urban Development, 2018

The majority of households in Malden are lower income. Lower income households earning 80% of MFI or less tend to have fewer housing choices, and often live in homes they cannot afford without making other significant sacrifices pertaining to heat, food, healthcare, or other expenses. Approximately 56% of Malden households are lower income, of which 25% are extremely low income, 15% are very low income, and another 15% are low income. All of these households are eligible for traditional Affordable housing deed-restricted to those with incomes no more than 80% of MFI. About 11% of Malden households are moderate income and 34% are high income. Malden renters are more likely to have lower incomes than homeowners (68% of renters compared to 38% of homeowners). Malden’s high rate of low-income households is not unique. Somerville has the lowest rate of neighboring communities at 42%, lower than Malden but still high, and Everett’s rate is higher at 62%.

Householders of all types and ages have high rates of low income status. According to ACS 2011-15 estimates, 86% of elderly residents (age 65 and older) living in non-family households are low income, most likely because many live alone and rely on fixed incomes. 57% of non-family households such as roommates or residents who live alone at any age are low income, followed by 56% of elderly family households and 49% of family households.

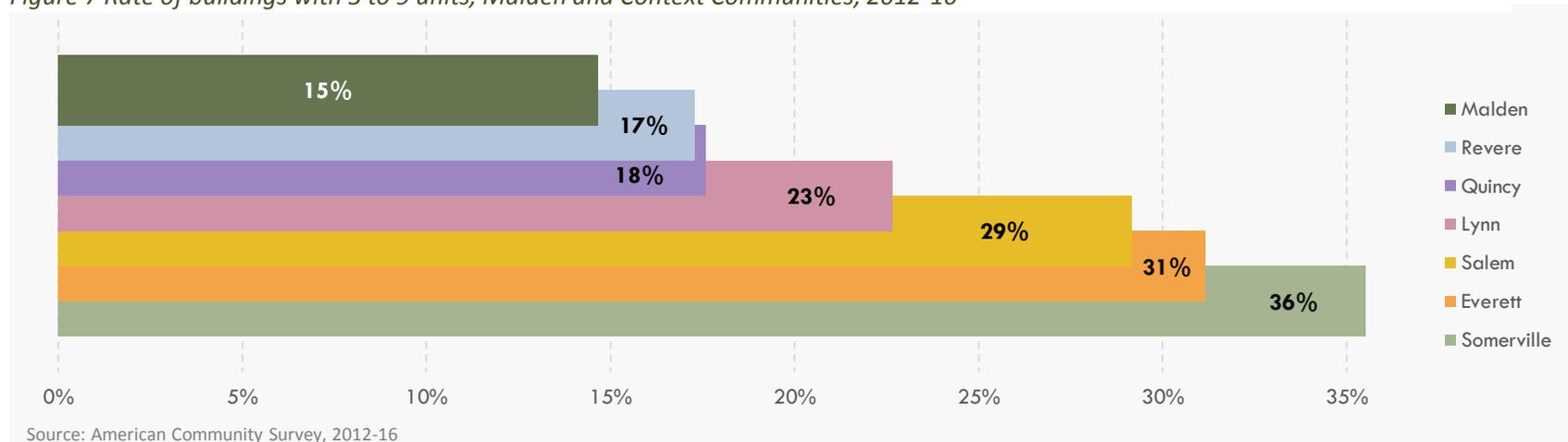
HOUSING

Malden has produced new housing in recent years, largely through redevelopment around Malden Center and at the former Rowe's Quarry at the Malden-Revere border. This new housing development has not included deed-restricted Affordable Housing, meaning homes that are deed restricted to be Affordable to lower-income households at less than 30% of their annual income. Today, the city's housing stock is varied, including single-family homes and larger multifamily developments, but few mid-size housing options. Home sale prices have rebounded following the Great Recession and are close to surpassing all-time high values. Rents for new apartments are high, but those for older units remain lower.

HOUSING STOCK

Malden's housing stock includes a mix of single-family, two-family, and larger multifamily buildings, but not many types in between. There are approximately 27,300 housing units in Malden, 8% more than the 25,161 units in 2010 according to the Decennial Census of that year.⁵ Less than one-third of housing is single-family homes (28%), more than a quarter is two-family homes (26%), and nearly one-third is in multifamily buildings with more than 20 units (31%). Malden has a higher rate of these larger multifamily buildings than many other communities analyzed for context, but only 15% of the city's housing stock is in buildings with three to nine units, lower than any other community analyzed. See Figure 7. This gap in the housing supply is sometimes referred to as "missing middle housing," a type of housing that can be relatively more affordable without deed restriction than market-rate single-family homes owing to their smaller size compared to larger multifamily development due to differences in construction techniques and finishes.

Figure 7 Rate of buildings with 3 to 9 units, Malden and Context Communities, 2012-16



⁵ The number of housing units was estimated by adding the 2,148 units permitted since 2010 to the total count of 25,161 units in the 2010 Census.

Housing Age

The housing stock in Malden is a mix of old and new homes. More than half of housing units in the city were built before 1940 (56%), which is similar to other communities analyzed for context. About 13% of units were built between 1940 and 1969, 18% between 1970 and 1999, and 14% since 2000. While a portion of the city's older housing stock may have undergone upgrades, it is likely that some of the older homes in Malden are not code compliant and lack accessibility features that are required of newer homes.

Housing Vacancy

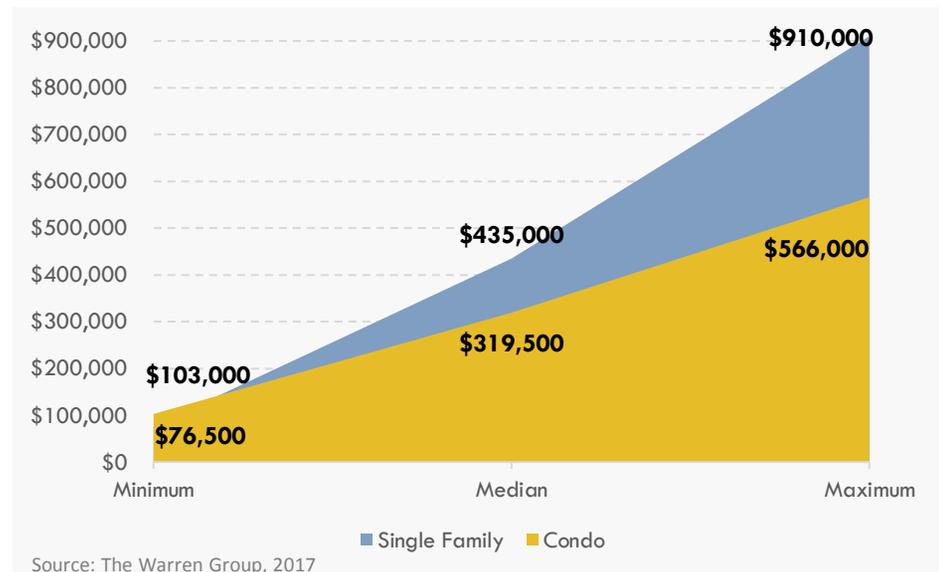
The rate of vacant units in Malden is lower than recommended for a healthy market. About 5.8% of housing units in Malden are vacant, slightly lower than the 7% recommended by the Dukakis Center for Urban and Regional Policy, Joint Center for Housing Studies, and HUD's Office of Policy Development and Research. A low vacancy rate is an indicator of a tight housing market, where demand for homes is higher than the existing supply. When demand is higher than supply, prices can increase at a faster rate than they would otherwise. A low vacancy rate also makes it difficult for folks to move into or within Malden when they need to downsize or size up.

HOUSING MARKET

Home Sale Prices

Prices for homes have increased following the end of the Great Recession and are nearing the peak prices of 2005.⁶ The median price for a single-family home in 2017 was \$435,000, much higher than the 2012 median of \$290,261 median and close to the 2005 high of \$445,559. Compared to other communities analyzed for context, Malden's median single-family house price was among the highest. Per Warren Group data, only Quincy and Somerville have higher median prices for this housing type: \$435,800 and \$720,000, respectively. The lowest sales

Figure 8 Home Sale Prices, Malden, 2017



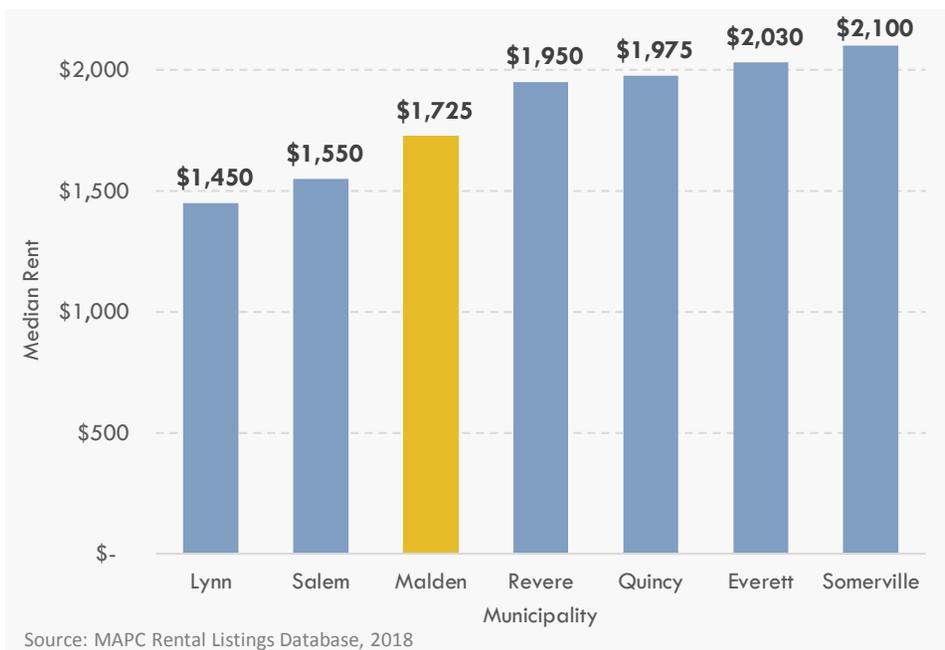
⁶ All prices have been adjusted for inflation.

price for a single-family home in Malden in 2017 was \$76,500, while the highest was \$910,000.

The median price for a condominium in Malden in 2017 was \$319,500. This is lower than the 2005 median of \$328,835, but still higher than the 2012 low of \$203,050. Of communities analyzed for context, only Somerville had a higher median price for a condominium at \$610,000. The lowest price for a condo in Malden in 2017 was \$103,000, while the highest was \$566,000. See Figure 8 for an overview of housing prices in 2017.

The number of home sales in Malden has increased in recent years, indicating a more active market. A lower sales volume can mean homeowners don't want to sell, be it for reasons of satisfaction or lack of alternative housing options, or it could mean buyers are unwilling or able to offer market prices. But in a regional housing market like Greater Boston, wealthy residents bid up prices and incentivize homeowners to sell, sometimes resulting in higher sales volume. According to The Warren Group, about 632 homes were sold in Malden in 2017, a 16% increase from the 542 homes sold in 2007. Compared to other communities analyzed for context, Malden's increase in home sales is low, with only Somerville's rate lower at 14%.

Figure 9 Median Rent for 1-bedroom Listings, Malden and Context Communities, 2018



Rental Prices

Malden's rental stock is moderately priced compared to some neighboring markets, but rents for newer housing are higher. Based on MAPC's Rental Listings Database, which collects rents from a number of online sources (such as Zillow and Craigslist), median rent for listings in 2018 ranged from \$1,450 for a studio to \$1,725 for a 1-bedroom to \$2,100 for a 2-bedroom apartment. Newer rental stock is higher priced: the median asking price for a studio and a 2-bedroom unit built after 2010 is \$1,857 and \$2,806, respectively.

Despite the nature of this newer housing, Malden's median rental price for a 1-bedroom apartment is lower than in many context communities. Only Lynn and Salem have lower rental prices at \$1,450 and \$1,550, respectively. See Figure 9.

New Development

In recent years, Malden has added many new units to its housing supply to help meet demand and improve the built environment, primarily in Malden Center and at the former Rowe's Quarry. The City confirms that since 2010, Malden has permitted 2,148 new housing units. Of these, 2,062 units are in multifamily buildings; 990 of these multifamily units are part of the Overlook Ridge development on the east side of the city, while hundreds more are being constructed at Malden Center. Permitted units also include 80 independent senior living units at 341 Forest Street and 28 single-family homes. Of the 2,148 permitted units since 2010, 1,794 are occupied units while the rest are under construction.

Short Term Rentals

Data shows that short-term rentals in Malden are not having a significant impact on the housing stock. As part of this planning process, some residents expressed concern that short-term rentals (STRs) such as those listed on Airbnb remove units from the longer-term rental supply. There are a low number of STR listings in Malden, most of which are for a bedroom within a larger unit occupied by a resident. There are about 128 active listings for STRs in Malden. Of these, one third are listings for entire homes (30%, or 39 listings), while more than two-thirds are for private rooms (70%, or 89 listings) in a house. This indicates that the vast majority of STRs in Malden do not decrease rental options for residents in favor of visitors. In fact, most listings seem to provide an income stream for residents. 72% (62 hosts) of Malden hosts have only one listing online. As opposed to hosts with multiple listings, those with only one are more likely to be residents interested in a supplemental rental income. As of December 2017, active STR listings in Malden had an occupancy rate of 55%, indicating a lukewarm market for this type of use.⁷ STRs are prohibited in Malden, and the City has said that it will enforce this policy.

AFFORDABILITY

The rate of deed-restricted Affordable Housing in Malden is high enough to surpass the legislative requirements of the Commonwealth, but with fewer than one deed-restricted Affordable home for every five low-income households, there is not enough to meet resident housing need. This insufficient supply means that most lower-income households in Malden occupy market-rate units for which they pay more than 30% of their income and are therefore cost burdened. Evictions in Malden have decreased since the Great Recession, but remain higher than in many context communities. There is a small but notable population of homeless residents in Malden.

SUBSIDIZED HOUSING INVENTORY

The Subsidized Housing Inventory (SHI), maintained by the MA Department of Housing and Community Development (DHCD) and commonly referred to as the SHI, measures the number and percent of housing units that are deed-restricted Affordable in a community.

⁷ STR data is from AirDNA, a short-term vacation rental data and analytics company. Learn more about AirDNA here: <https://www.airdna.co/>.

The SHI is calculated by dividing the number of deed-restricted Affordable units by the total number of housing units in a municipality as stated in the Decennial Census. The calculation is shown below.

$$\text{SHI} = \left(\frac{\text{deed - restricted affordable units}}{\text{U.S. Decennial Census housing unit count}} \right) \times 100$$

Deed-restricted units have income limitations that households must meet in order to be eligible for occupancy. Income limits are based on HUD MFI calculations, discussed earlier in this report. In the Commonwealth, a municipality's SHI is also used for compliance with the Massachusetts General Law Chapter 40B, otherwise known as the Comprehensive Permit Law. Per Chapter 40B, a community with less than 10% of units on the SHI may have to issue Comprehensive Permits for development that provides 20-25% deed-restricted Affordable Housing even if it bypasses local zoning requirements.

Affordable Housing Stock

In Malden, approximately 10.1% (2,542 units) of the housing stock is on the state's SHI.⁸ This does not mean that all of these units are deed-restricted Affordable Housing, however, since the state counts 100% of rental units in mixed-income projects on the SHI, even those that are market rate. In 2020, the total housing unit count will be updated as part of the Decennial Census, and a new rate will be calculated. As noted above, Malden has built a considerable number of market-rate units since the 2010 Decennial Census, but construction of deed-restricted Affordable units has lagged behind. This will most likely result in Malden dropping below the 10% SHI threshold in 2020. Additionally, 470 Malden units currently on the SHI are set to expire by 2030. If the deed restrictions on these units are not renewed, Malden's SHI could decline further. Falling below 10% on the SHI likely does not matter in terms of 40B development since analysis indicates Malden qualifies for safe harbor under a different calculation (see the City's General Land Area Minimum documentation for more information). However, it does matter in terms of a reduction in Affordable Housing for Malden residents. Meeting the SHI and GLAM targets are important in terms of the City's response to 40B developments, but these numbers should not be the sole basis for an Affordable Housing strategy for Malden since they do not reflect the community's unmet housing needs.

COST BURDEN

HUD defines cost-burdened households as those paying more than 30% of income on housing. There are different degrees of cost burden, as defined by HUD and shown in Table 4 below.

⁸ DHCD's SHI was last updated on September 14, 2017.

Table 4 HUD Cost Burden Categories

COST BURDEN	COST BURDEN PERCENT
Cost burden, inclusive	≥ 30% of income spent on housing
Cost burden	30% to 50% of income spent on housing
Severe cost burden	> 50% of income spent on housing

Cost-Burdened Households

Malden has a high rate of cost-burdened households, explained in part by the high rate of low-income households in the city and the insufficient supply of deed-restricted Affordable Housing. While cost-burdened low-income households may have to make tough choices between housing and other basic needs, like healthcare, transportation, and food, cost-burdened households at all income levels have difficult contributing to the local economy. Almost half (47%) of all Malden households are cost burdened, a higher rate than in the other communities analyzed for context except Revere (51%) and Everett (53%). Of the 47% cost-burdened households in Malden, about 24% pay 30-50% of income on housing while 22% pay more than 50% and are severely cost burdened.

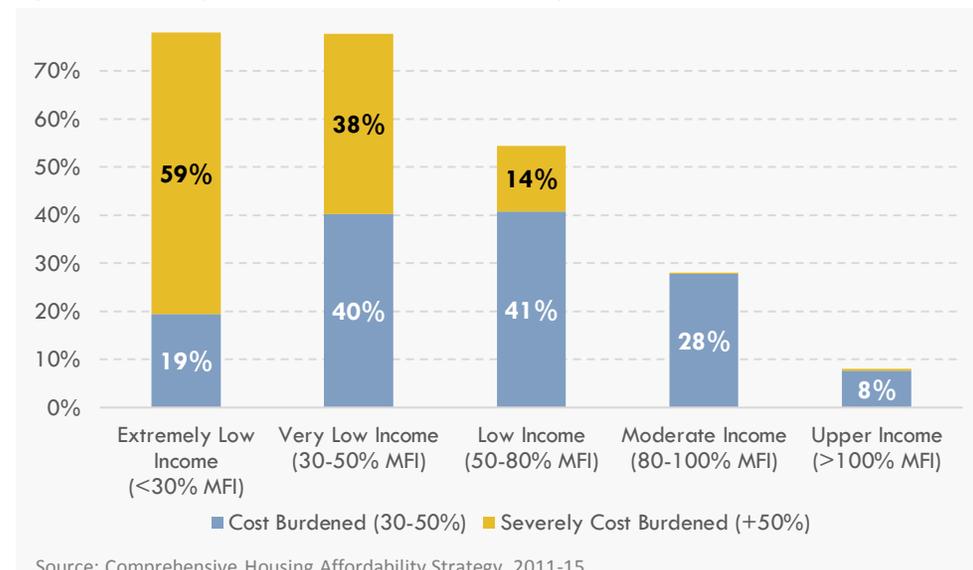
Renters experience higher rates of cost burden.

About 56% of renters are cost burdened, compared to 34% of homeowners.⁹ About 27% of renters pay 30-50% of household income on housing, and 28% pay more than 50% of household income on housing. In comparison, 20% of homeowners pay 30-50% of household income on housing, while 14% pay more than 50% of household income on housing.

Cost Burden by Income Level

The majority of low-income households in the city are cost burdened. If an upper-income household is cost burdened, their remaining income would likely be enough to meet all other

Figure 10 Rate of Cost-burdened Households by Income Level, Malden, 2011-15



⁹ For renters, housing cost is gross rent (contract rent plus utilities). For homeowners, housing cost is select monthly costs (mortgage payment, utilities, association fees, insurance, and real estate taxes).

basic needs. If a low-income household is cost burdened, they may have to sacrifice basic needs like food, health care, transportation, or clothing in order to stay in their home. According to 2011-15 CHAS data, about two-thirds (67%) of low-income households in Malden are cost burdened. Such a high rate of cost-burdened low-income households is not entirely unusual for the area: Lynn (67%) and Salem (64%) have comparable rates of cost-burdened low-income households, and several communities analyzed for context have higher rates than these communities.

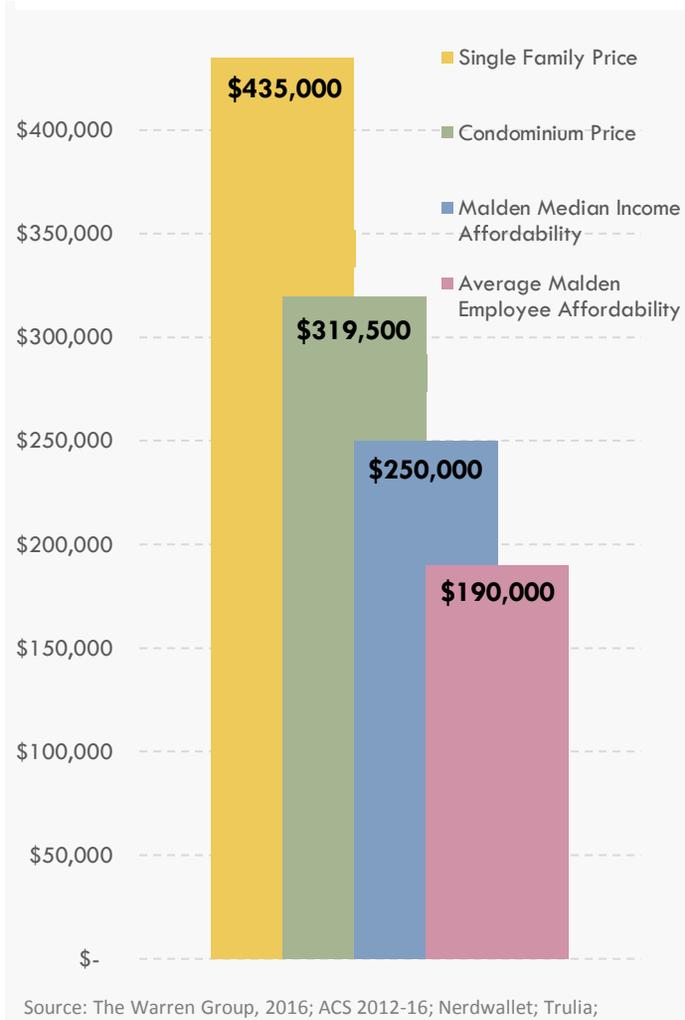
In general, Malden households with lower incomes experience higher rates of cost burden. As noted above, low-income households are those with incomes at 80% of MFI or below, and this broad category includes very low-income households at 30-50% of MFI and extremely low-income households at 30% of MFI or below. More than half (54%) of all low-income households are cost burdened, with 41% of them paying 30-50% of income on housing and 14% paying 50% or more. About 78% of very low-income households are cost burdened, with 40% of them paying 30-50% of income on housing and 38% paying 50% or more. Similarly, 78% of extremely low-income households in Malden are cost burdened, with 19% of them paying 30-50% of income on housing and 59% paying 50% or more. Approximately 28% of moderate-income households and 8% of upper-income households are cost burdened; none of them are severely cost burdened. See Figure 10.

HOUSING AFFORDABILITY GAP

Despite surpassing the 10% SHI threshold, Malden's housing stock does not meet the needs of many residents, particularly low-income households. The estimated 2,542 SHI units are far fewer than the estimated 12,720 low-income households in the city, and the ratio is technically even lower since market-rate rental units in mixed-income projects are listed on the SHI in addition to deed-restricted Affordable Housing.¹⁰ In other words, for every five low-income households in Malden, there is at most one deed-restricted Affordable Housing unit. And for every three cost-burdened low-income households, there is at most one deed-restricted Affordable Housing unit. For lower-income households as well as those with relatively higher incomes, there is a clear affordability gap in Malden, meaning a disconnect between the cost of housing and what residents can afford. Recent developments have not included any deed-restricted Affordable Housing, and therefore have not reduced the housing affordability gap.

¹⁰ This report largely refrains from using number estimates, as they tend to be less accurate than percent estimates, but they are provided here for the purpose of depicting the housing affordability gap in Malden. The number of low-income households is based on CHAS data from the 2011-15 ACS.

Figure 11 Homeownership Affordability Gap, Malden



Homeownership Affordability Gap

Homeowners earning the city median income struggle to afford Malden’s housing. Based on typical estimates, including a staggering down payment of \$60,000, households earning the median income of \$60,085 could afford a home of approximately \$250,000.¹¹ But the 2017 median price for a single-family home in Malden of \$435,000 is about \$185,000 higher than this. Even the \$319,500 median price for a condominium in 2017 is higher. Moreover, the majority of people working in Malden cannot afford the median sales price in the city. According to the North American Industry Classification System (NAICS), employees who work in Malden earn an average of \$46,560 per year. Generally speaking, they could therefore afford a home priced at \$190,000, much lower than the median price for a single-family home or a condominium. See Figure 11.

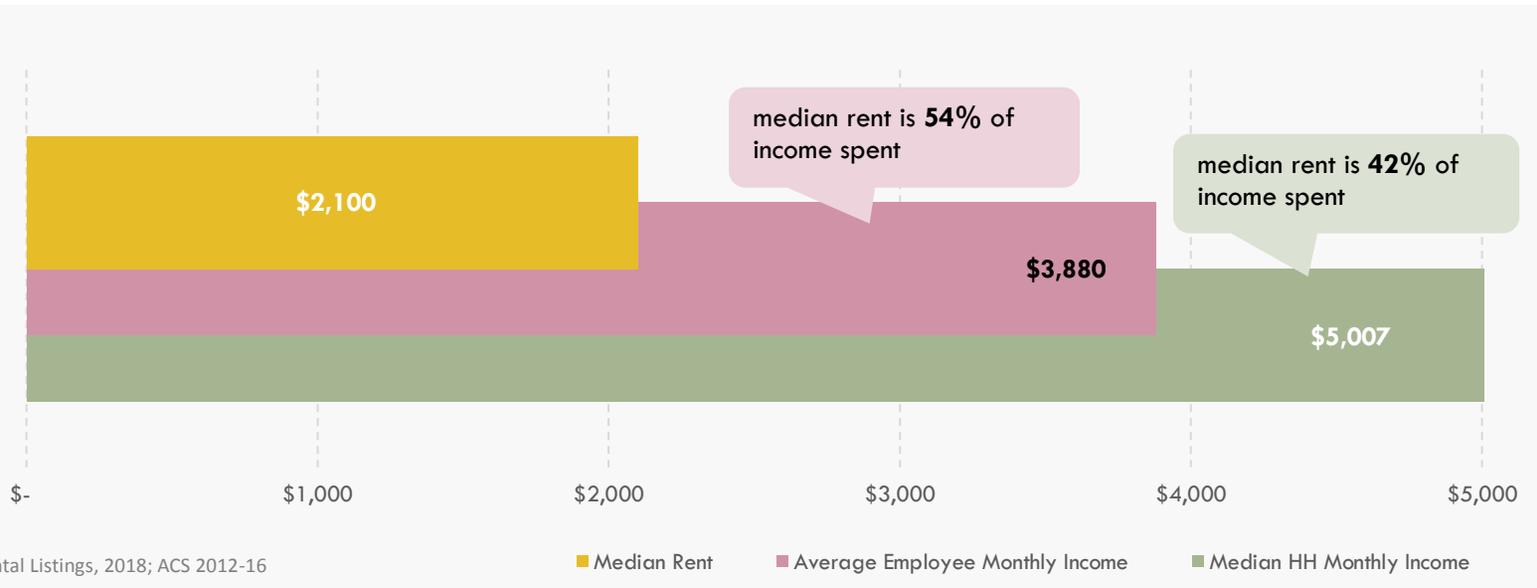
Rental Affordability Gap

Renters earning Malden’s median income would be cost burdened in a unit rented for the median rate. A household earning Malden’s median income of \$60,085 would have a monthly income of about \$5,007. If they were to rent a median-priced 2-bedroom unit for \$2,100, they would pay 42% of their income on housing and therefore be cost burdened. A Malden employee earning the annual average income of \$46,560, as opposed to the median, would have a monthly income of about \$3,880.¹² If this household were to rent the same 2-bedroom unit, they would spend 54% of their income on housing and be severely cost burdened. See Figure 12.

¹¹ Nerdwallet, Trulia, Zillow; estimating a down payment of \$60,000, \$500 monthly debt, a good credit score, 30-year loan term, and 5% loan rate.

¹² Average NAICS income does not take into account income deducted for tax and health care purposes.

Figure 12 Rental Affordability Gap, Malden



FORECLOSURES

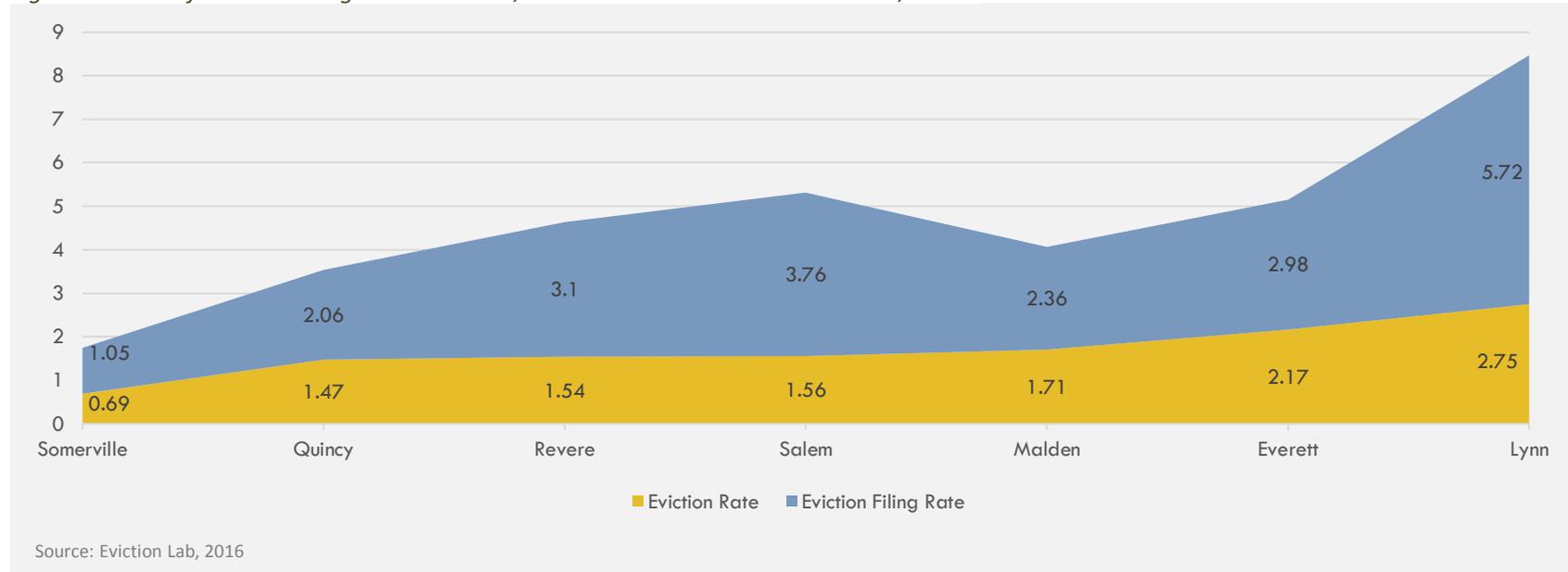
After the housing bubble burst and the Great Recession ensued, the number of foreclosures around the country and the Commonwealth surged. Foreclosures lower people’s credit rating and can leave households homeless; they also lower property values and can incur greater public costs (such as unpaid utilities and the cost of inspections or demolitions). Although the economy has largely recovered since the Recession, some of its effects persist. According to The Warren Group, foreclosures in Malden peaked in 2009 when 307 were registered, but there were still 124 foreclosures registered in 2012, and 59 registered as recently as 2017.

EVICIONS

Like foreclosures, the rate of evictions can be an indicator of a community’s affordability and stability. Understanding the prevalence of evictions helps assess whether households, especially those who are low income and lack access to deed-restricted Affordable Housing, are able to stay in their homes. Evictions affect households in different ways: households lose their homes and oftentimes their possessions, households may struggle to find a new home since many landlords discriminate against those who have been evicted, and studies show that evictions cause job loss and negatively impact mental health. In Malden, eviction and eviction filings reached their peak in 2012, when 521 evictions were filed (out of a total 14,005 renter-occupied homes, or a rate of 3.72) and 340 were

processed (out of a total 14,005 renter-occupied homes, a rate of 2.43).¹³ While evictions have decreased since then, they continue to remain high: In 2016, 345 evictions were filed (a rate of 2.36) and 250 were processed (a rate of 1.71). When compared to other communities in the area for context, only Everett and Lynn had higher rates of eviction in 2016. See Figure 13.

Figure 13 Rate of Eviction Filings and Evictions, Malden and Context Communities, 2016



HOMELESSNESS

Homelessness was highlighted as a concern in conversations with several focus groups and the Advisory Committee for this process. Rising rents are associated with increasing rates of homelessness, and a recent study found that increase in cost burden is correlated with a surge in homelessness.¹⁴ Unfortunately, it is oftentimes difficult to find accurate data to document the extent of this issue, as data is based on local nightly counts that may change throughout the year.

¹³ The eviction filing rate is the ratio of the number of evictions filed in an area over the number of renter-occupied homes in that area; the eviction rate is the ratio of the number of renter-occupied households in an area that received an eviction judgement in which renters were ordered to leave.

¹⁴ Chris Glynn and Casey Alexander, "Homelessness Rises More Quickly Where Rent Exceeds a Third of Income." Zillow Research. December 11, 2018, https://www.zillow.com/research/homelessness-rent-affordability-22247/#_edn1.

It is clear from data provided by the Malden Public Schools and Housing Families, a local agency dedicated to ending homelessness in Malden and across the Commonwealth, that the city has a small, but notable homeless population. Malden Public Schools registered 186 homeless students during the 2017-18 school year, while the Housing Families' Pro Bono Legal Team received calls from 188 different Malden households, comprised of 515 people, related to housing instability in 2017.

The City, through its CDBG program and in partnership with local organizations, provides some funding to prevent homelessness, but resources are insufficient to keep up with need and do not address structural causes of homelessness.

PROJECTED HOUSING DEMAND

PROJECTED POPULATION GROWTH

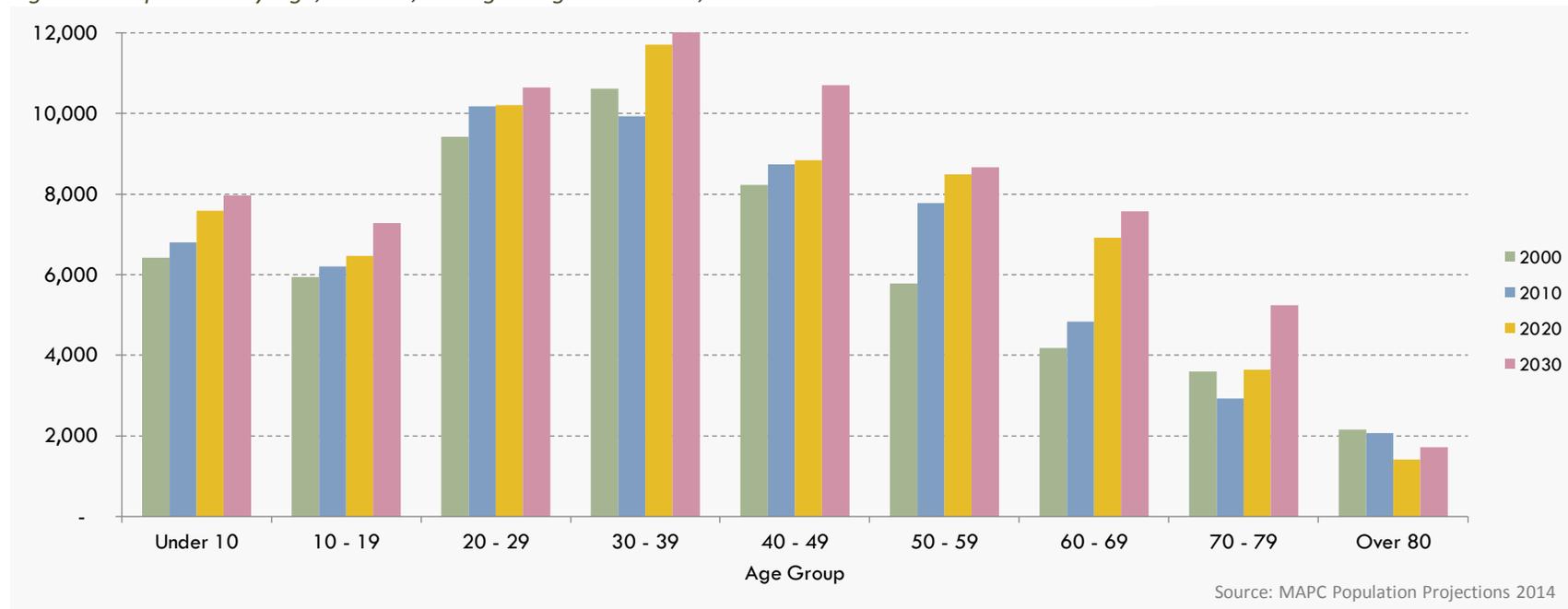
In the years to come, it is likely that Malden will continue to attract young adults under the age of 35, due to its proximity to jobs, transit access, and other appealing features. These young workers, parents, and students will have a wide variety of housing needs and preferences, including living alone, with roommates, or as a family. Using recent trends in migration, along with information about births and deaths, MAPC projected the city's future population and the housing needs of current and future Maldonians. These projections are not presented as a definite prediction of what the city will look like in ten years, but rather as an analysis that can help the City and community understand the factors that are likely to drive housing demand in the near future.

MAPC's "Stronger Region" population and housing demand projections assume continuation of the migration patterns, births, and deaths observed during the first decade of this century, as well as some increased preference for urban living among younger adults and their households. Region-wide, this set of projections anticipates population increase of 10% from 2010 to 2030, and a corresponding increase of 18% in housing demand over that same period. Housing demand is projected to rise faster than population as a result of declining household sizes largely attributable to the substantial increase of senior residents, who are much more likely to live in one- or two-person households.

Based on that same set of assumptions, Malden's population would grow by 21% over the 20-year forecast period. Figure 14 below shows the projected population by age for the city. An increase of 12,400 people is anticipated, with growth across all age groups with the exception of residents over the age of 80. While older residents age 60 to 79 are expected to continue to move out of Malden at a modest rate (a current trend documented in Figure 4), this loss will be offset by a far greater number of existing Malden residents aging into this age group. Specifically, the entire Baby Boomer cohort (born between 1945 and 1964) was less than 65 in 2010, and will all be older than 65 by the year 2030. See Figure 14. While it seems somewhat counter intuitive, even as the number of senior Maldonians is projected to increase, there will be fewer households headed by someone born before 1965: A modest decline of 2,000 Boomer-headed households will result from outmigration and mortality, while more than 4,000 households headed by the city's

oldest residents (born before 1945) will be dissolved as these older seniors move out of Malden, move to assisted living, or pass away. MAPC projections also anticipate substantial growth in the population age 30 to 50 over the forecast period, as the very large Millennial cohort (born 1980-2000) progresses into these age groups (the oldest Millennials will be age 50 in 2030).

Figure 14 Population by Age, Malden, Stronger Region Scenario, 2000-2030



MAPC compared its earlier 2014 projections to recent Census population estimates to assess whether projections are matching observed population trends. Overall, the Stronger Region scenario accurately projected that metro Boston would see notable growth. If anything, the region is adding population faster than expected: From 2010 to 2020, the Stronger Region scenario anticipated growth of 105,800 residents in select metro Boston communities within the Metropolitan Mayors Coalition (MMC), including Malden. This amounts to about 10,600 additional residents per year. According to the 2017 Census population estimates, MMC municipalities have already added 109,700 residents since 2010, at an average rate of 15,700 per year.

For this report, MAPC estimated that the 2018 Malden population was approximately 67,800, about 11% higher than the projected population for that year, indicating the city is growing faster than previously projected.¹⁵ Our analysis attributes that additional growth to greater-than-expected in-migration of young adults.

PROJECTED HOUSING DEMAND

Looking forward, the biggest increase in housing demand in Malden will come from young adults moving to the city or forming their own households here as they grow up and leave their parents' homes. MAPC's projections of how many housing units current and future Malden residents will need as they form households are based on recent patterns of housing occupancy, as well as anticipated changes in housing preferences among younger adults, who are more likely to live in multifamily housing and less likely to purchase a home. While many units currently occupied by older Malden residents will be available to younger residents in the coming years, there won't be nearly enough to meet this demand.¹⁶

¹⁵ As discussed earlier in this report, U.S. Census estimates of Malden's current population and age distribution are not accurate.

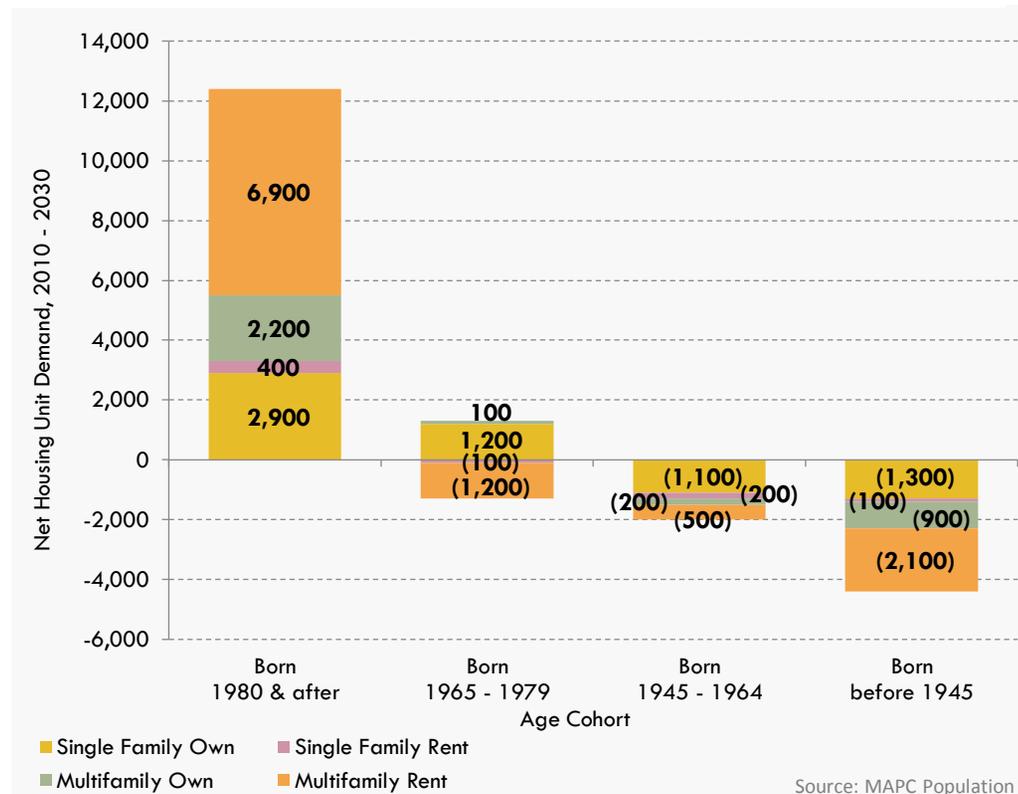
¹⁶ For more information on the methodology used for these projections, go to <http://www.mapc.org/wp-content/uploads/2017/08/MetroBoston-Projections-Appendix-F-Formulas.pdf>.

Existing and new residents born after 1980 are projected to form about 12,400 households seeking homes in Malden between 2010 and 2030. See Figure 15. Most of those households will still be in their 20s and 30s by 2030, and so the majority of that demand will be for multifamily rental housing. Over that same time period, the city’s Gen X households (born 1965-1979) will continue shifting from multifamily to single-family homes, with very little change in the number of households.

We anticipate that older residents will free up nearly 6,400 housing units over the forecast period, 53% of the net demand from younger households. This net change for older residents is calculated as the change in housing unit demand for the 1965-1979 age cohort (1,300 formed households less 1,300 households, for no net change), plus the net change of the 1945-1964 age cohort (less 2,000 households), plus the net change of those born before 1945 (less 4,400 households). This net decline in the number of households headed by someone born before 1965 is due to the modest outmigration of older adults, as well as mortality of the city’s oldest residents.

After accounting for the units made available by older households and the demand created by younger households, MAPC projects that Malden will see demand for a net increase of at least 6,000 housing units between 2010 and 2030. This is calculated as the number of households projected to be newly available (6,400) minus the projected demand (12,400). Through 2018, Malden issued permits for 2,148 units, about 36% of that projected demand. This means there is demand for an additional 3,852 units between 2018 and 2030.

Figure 15 Net Housing Demand by Year Born, Malden, Stronger Region, 2010-2030



However, there are indications that demand for housing in the city is growing even faster than anticipated. Malden and the entire MMC area may continue to add population much faster than previously projected, as young adults are drawn to metro Boston by a thriving economy and attractive amenities. If the region maintains the average job growth rate of the period between 2008 and 2016 (which includes both Great Recession and recovery periods), the MMC region could gain 235,000 new jobs between 2015 and 2030, an increase of 25%. Hundreds of thousands of new workers will be needed to support this growth, in addition to the labor needed to backfill vacancies left behind by retiring Baby Boomers. This intense demand for labor would attract more people to live in the region.

SELECT DEVELOPMENT CONSTRAINTS

Given the unmet housing need and demand in Malden, MAPC undertook a limited analysis of potential hard constraints on residential development to inform a future planning process to expand housing opportunity in the city. This analysis is limited to select constraints on land use and infrastructure capacity, including a limited analysis of water and wastewater infrastructure and parking demand. It does not extend to institutional capacity, such as schools, nor does it consider current zoning. This is because zoning is not an immutable constraint to residential development, but rather can be adapted to function as either a barrier or to create opportunity depending on the will of the community and leadership. It is recommended that greater analysis of hard development constraints, zoning, and potential development opportunities be undertaken in the future in order to identify specific areas and sites in Malden with the capacity for development or redevelopment.

LAND CONSTRAINTS

Through spatial analysis, MAPC considered constraints on land that could impede development and redevelopment potential. The City of Malden comprises 3,247 acres, including private and public land, open space, roadways, and water bodies. For the purposes of this analysis, four types of constraints on Malden's land were considered: absolute constraints, high utilization constraints, functional constraints, and unknown constraints. Below is an overview of each constraint:

- **Absolute Constraints:** Land that is extremely unlikely to be developed or redeveloped due to its current use, such as water bodies, permanently protected open space, rights-of-way, and cemeteries.
- **Functional Constraints:** Land that has features posing significant barriers to development, such as flood zones (100-year and 500-year), core habitat and critical landscape, and/or areas within 100 feet of a wetland.
- **Unknown Constraints:** Land with environmental hazards that pose a significant financial barrier to development or redevelopment, such sites within 150 feet of a Chapter 21E site and/or Activity and Use Limitation site, or publicly-owned sites that already include buildings.
- **High Utilization Constraints:** Land that is extremely unlikely to be developed or redeveloped due to its current value, including buildings developed during or after 2010 and/or with a value per square foot in the highest 25% of building values in Malden. This constraint does not necessarily prohibit development on any given site in the way that the above constraints do, but makes it less likely.

The analysis found that approximately 53% (1,716 acres) of the total land area falls within one of the four development constraints and is likely unsuitable for development or redevelopment. About 32% (1,045 acres) of the total land area is classified as being

absolutely constrained, 8% (252 acres) is functionally constrained, 8% (259 acres) has an unknown constraint, and 15% (483 acres) is highly utilized.

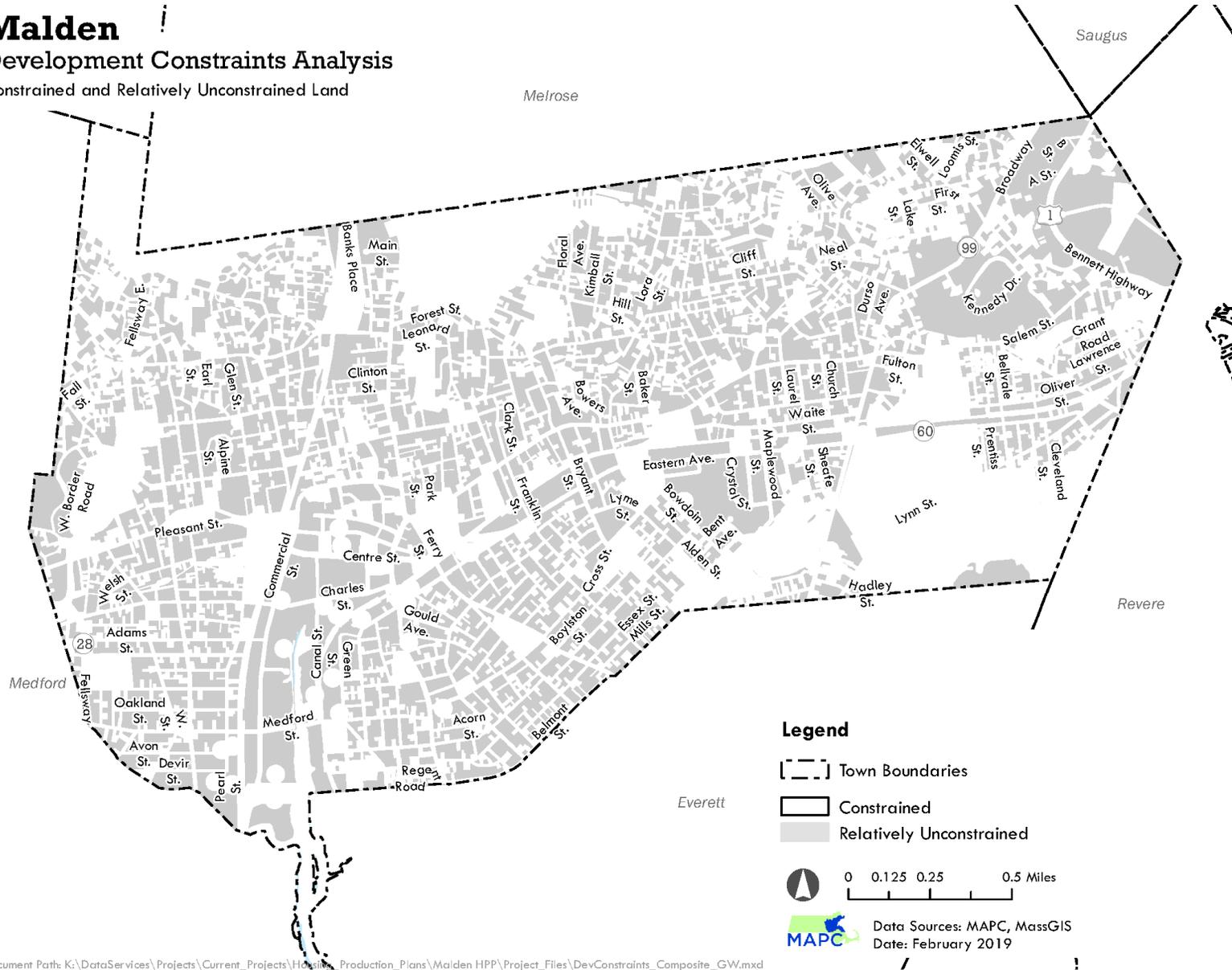
The remaining land in Malden, a little less than half of the city, can be understood as free from hard constraints on development. About 47% of Malden (1,531 acres) falls into this category. Further analysis of soft constraints as well as opportunities is needed to better understand how suitable these parcels are to future development or redevelopment. See Figure 16 for a spatial output of this constraints analysis and the appendix for more information.

Figure 16 Malden Development Constraints Analysis

Malden

Development Constraints Analysis

Constrained and Relatively Unconstrained Land



WATER AND WASTEWATER

MAPC also undertook a limited analysis to determine whether any infrastructure or operational constraints within the regional water and wastewater system had been identified that could affect Malden's ability to accommodate additional housing or other forms of development. This analysis is based on discussion with the Planning and Sustainability Department at the Massachusetts Water Resources Authority (MWRA), a Massachusetts public authority that provides wholesale water and sewer services to 3.1 million residents in 61 of Boston's metropolitan communities. The MWRA operates regional transmission facilities that provide water to Malden and carry wastewater from Malden to the Deer Island Wastewater Treatment Facility.¹⁷

According to MWRA representatives, current capital planning efforts have not identified any capacity constraints in the supply, transmission, or treatment system that would limit the amount of water the Authority could provide Malden or the amount of sewage that it could treat. Both the Quabbin Reservoir and the Deer Island Wastewater Treatment Facility have a substantial amount of excess capacity for current and projected growth in the region.

Currently, a major focus of the MWRA's efforts relate to the issues of Combined Sewer Overflows and Sanitary Sewer Overflows (SSO), both of which result in untreated sewage being discharged to receiving waters during storm events.¹⁸ According to the Massachusetts Department of Environmental Protection (DEP), Malden no longer has any Combined Sewer Overflows.¹⁹ While additional sewage from new development does have the potential to marginally increase sewage flow and associated SSOs, the principal cause of these discharges is inflow and infiltration (I & I) of rainwater and groundwater into the sewer system. As a result, DEP and the MWRA have identified reduction of I & I, not restrictions on new development, as the key strategy for eliminating SSOs. In fact, mitigation payments from new development are generally structured so that they support removal of a greater volume of I & I than the additional sewage produced by the development, resulting in a net reduction of flow and reduced incidence of SSOs.²⁰

MAPC also contacted Malden's Department of Engineering to assess the capacity of the City's water, sewer, and storm water infrastructure. According to the Department's representatives, the City has a complete sewer and water system with enough capacity to

¹⁷ The pipes and other infrastructure that carry water and wastewater in the city belong to the City of Malden.

¹⁸ Combined sewer overflows, or CSOs, were built as part of sewer collection systems that were designed to carry both sewage and storm water in the same pipe. When there is not a lot of storm water, this mix is transported to a wastewater treatment plant where it is processed. However, after heavy rainfall or snowmelt, storm water and sewage overload the system. Combined sewer systems have regulator structures that allow overloaded systems to discharge into rivers, lakes, and coastal areas subjecting them to higher pollutant loads. This can compromise a water body's uses and lead to water quality violations in the receiving waters. A Sanitary Sewer Overflow (SSO) is an unintentional discharge of wastewater to the environment prior to reaching a treatment facility. SSOs can occur on infrequent occasions when the capacity of the sewer system is exceeded, usually due to extreme conditions such as heavy rainfall, or an obstruction or break in sewer lines. During such events, flow may be discharged to local receiving waters, without treatment, as a last resort to reduce the risk of sewage backing up into homes and businesses.

¹⁹ Combined Sewer Overflow Permittees in Massachusetts, June 2018: <https://www.mass.gov/files/documents/2018/06/14/csopermittees.pdf>

²⁰ More information about the MWRA I & I program: <http://www.mwra.com/comsupport/ii/iiprogram.html>

handle existing and future development. The City routinely replaces older infrastructure, including water mains and pipes. Additionally, developers building on a parcel of one acre or larger are required to provide an additional storm drain pipe, contributing to the City's future infrastructure capacity.

PARKING DEMAND

In 2017, MAPC completed a Metro Boston Perfect Fit Parking Initiative report that assessed parking supply and demand in five municipalities, including Malden.²¹ Working directly with the City of Malden assessor to obtain property assessment information, MAPC surveyed a total of 25 multifamily residential properties with nine or more units. MAPC then conducted overnight (weeknights, 12:00-4:00 AM) parking counts to observe the number of spaces occupied during peak residential parking hours. MAPC used this data, and that collected in the other four participating municipalities, to create a model of parking demand per unit, controlling for Affordable Housing units and housing tenure (rental/ownership).

In Malden, the average observed parking supply per unit was 1.09 spaces, but the average parking demand per unit was 0.73 spaces, for a utilization rate of only 67%. This is much lower than MAPC's recommended parking utilization rate of at least 90% for off-street residential uses in order to efficiently use land while still allowing for some snow storage, dumpsters, and other non-parking uses.²²

A key finding of this study is that parking supply can increase parking demand. In other words, offering residential parking attracts residents with cars. Households with two vehicles, for example, will generally seek housing arrangements with two parking spaces. Those with one or no vehicle, will seek housing with a corresponding number of spaces. Another key finding is that neighborhood transit access influences the need for parking, so multifamily buildings with good transit access may require even less parking per unit than other comparable buildings in less transit-rich areas in Malden.

Based on this sample, more parking is supplied for multifamily housing in Malden than is demanded, a trend repeated in the other four communities surveyed. Parking demand, then, should not be considered a constraint on development. More rigorous parking regulations that better align parking supply with demand will lead to less congested roads, because development with fewer spaces will attract occupants with fewer cars. And perhaps most importantly, adjusting parking regulations will more efficiently use precious land in Malden for more valuable purposes, such as to meet housing, economic development, open space, or other goals. To inform regulatory amendments based on a better understanding of what building and neighborhood characteristics influence parking demand, MAPC will be gathering more data about additional multifamily developments in the region, including other sites in Malden, as part of a Phase 2 of the Perfect Fit Parking Initiative.

²¹ Arlington, Chelsea, Everett, and Melrose are the other participating municipalities.

²² More information about the Metro Boston Perfect Fit Parking Initiative can be found here: <http://perfectfitparking.mapc.org/>

CONCLUSION

Malden has significant current unmet housing needs that are projected to increase in the coming decade, amplifying challenges for the community. The lack of supply in the face of such strong regional and local demand for housing will continue to drive up prices, likely increasing the occurrence and severity of cost burden. Cost burden can effect residents' ability to maintain their homes and support the local economy. Unmet housing demand may also change the nature of the community, and make it harder for many residents to stay in Malden. In particular, the following populations will face increasing pressure:

- **Lower-income households:** More than half of Malden households (56%) are lower income, with incomes no more than 80% of MFI. Of them, 54% are cost burdened, paying 30% or more of income on housing. More specifically, 41% of lower-income households pay 30-50% of income on housing and 14% of lower-income households pay 50% or more of income on housing. Lower-income residents experiencing cost burden often face tough choices between housing and other important expenses like utilities, health care, food, and transportation.
- **Renters:** Renters are particularly impacted by market inflation when landlords raise rents, sell properties to new management companies, or convert rental units to condominiums, all of which are often done to appeal to higher-income residents in hot markets. Renters, who make up more than half of Malden households (59%), often lack protections against these kinds of changes, and may leave their homes and even community either because they cannot afford higher rents or they are evicted to make way for occupants who can.
- **Some minority residents:** Black households in Malden have the lowest median income of any race or ethnicity in the city at \$48,984, followed by Latino households at \$57,153. All communities of color have lower rates of homeownership. This means high housing costs have disparate impacts on minority racial and ethnic groups, who can face higher risk of displacement.

With population growth projected to continue in the city and the region, housing demand will only increase, and with it housing costs unless the supply also increases. MAPC projects that Malden will see demand for nearly 3,900 more units between now and 2030, though the City has not committed to meeting this demand through new production. New workers are needed to fill jobs vacated by retiring Baby Boomers in the coming years and to fill the new jobs created to maintain a strong economy. These workers need homes and will increase competition for existing housing unless additional units are added to the supply.

Even if population growth in the city were to inexplicably slow or stop tomorrow, “latent demand” would maintain pressure on the housing market for years to come. As noted earlier in this report, in-migration of young adults has pushed Malden's population to a new high, but production of new housing units has not kept pace with population growth. This affects residents who can't find a place of their own and are living with roommates or family. Members of these households will likely continue to look for their own homes,

bidding up prices for the limited supply until they find them. More housing is needed for current residents, regardless of population growth in the future.

Because Malden's housing supply has not kept pace with this increase in demand, the community finds itself experiencing soaring housing costs and other challenges associated with unmet demand. In a housing shortage, available units go to those who can make the highest offer. These could be households with multiple workers, as is the case with young people living with roommates or family, or simply wealthier households with fewer, but higher-earning workers. Either type of household is able to pay more for a housing unit and outbid households with fewer or less well-paid workers.

Malden also has a significant affordable housing shortage, with fewer than one deed-restricted Affordable unit for every three cost-burdened low-income households. Of the approximately 1,800 new units constructed since 2010, none are Affordable units. A slight majority of Malden households (56%) are low income, with incomes no more than 80% of MFI, and could qualify for Affordable Housing. These units, however, make up less than 10.1% of the city's housing stock. Moreover, 470 deed-restricted Affordable units could expire by 2030; this represents about 18% of all Affordable Housing in the city. Although deed-restricted Affordable Housing cannot by itself meet the needs of eligible low-income households, producing and preserving Affordable units will reduce cost burden and help stabilize low-income households.

Expanding the housing supply, especially Affordable units, will help reduce local and regional market pressure. Basic economic principles dictate that if the supply of housing does not meet demand, housing prices will increase. This has been seen in Malden and throughout the region following the end of the Great Recession, as the population increased faster than new housing was created. While this growth has been a boon to the economy, a failure to increase housing and Affordable Housing in particular to account for population growth has also led to significant challenges for many communities, including Malden. Waiting to address the supply shortage risks greater consequences for Maldonians.

Malden is experiencing symptoms of gentrification. As a community that is well-connected to the region's economic centers, the city is highly desirable to higher-income households. The city shows signs of gentrification as these households move in, even as the community has become more racially and ethnically diverse in recent years. Two kinds of changes in housing occupancy are associated with gentrification:

Population Replacement: Replacement occurs when the number and composition of out-migrants does not change, but the people who move in have different demographics from those who moved out. With this pattern, current residents do not face pressure to leave, but those who choose to are replaced by residents with a different demographic profile.

Displacement: Displacement occurs when the rate of outmigration is higher than it otherwise would be because lower-income residents move due to increases in housing costs and a lack of affordable options. In-migrants can afford a higher cost of living and tend to have a different demographic profile from those who move out.²³

The differences between these kinds of housing occupancy changes can be subtle, but meaningful. Importantly, either replacement or displacement can result in profound changes in the demographic composition and social cohesion of a community.

As in many surrounding cities, challenges related to housing availability and affordability can lead to displacement of vulnerable populations. Some groups in Malden are particularly susceptible to being displaced, including the 56% of Malden households that are lower income and the 59% of households that rent. A majority of both groups are cost-burdened. Though renters (and particularly low-income renters) face higher displacement risk due to little control over their housing costs, lower-income homeowners are also at risk of displacement due to property tax assessments that increase with the value of their homes. Moderate-income Maldonians are less likely to be displaced, but 28% are already cost burdened.

Housing demand from higher-income households can incentivize landlords to raise rents or even evict tenants to make way for those who can afford to pay higher rates. Under these market conditions, not only is new development high end and high cost, older housing stock also becomes higher cost. This can result in cost burden and housing instability among long-time Malden residents. Increasing the supply of Affordable units will help some low-income households at risk of displacement due to rising rents.

In addition to evictions and possibly foreclosures, housing instability may mean the city will experience an increase in instances of overcrowding and homelessness. The former is when residents resort to living in cramped quarters with multiple people to a bedroom in order to better afford high-cost housing. Some Maldonians may not have the option to move in with friends or family, and could become homeless.

The Malden community has several programs that aim to address the most severe consequences of the regional housing crisis. These include homelessness prevention programs funded by the City's Community Development Block Grant (CDBG) funds and the new Malden Warming Center hosted by the First Church of the Nazarene and staffed by volunteers. These programs support some of the most vulnerable Malden residents, but do not address the underlying housing shortage.

The diversity and vibrancy that many Malden residents celebrate can be preserved by addressing identified housing needs. By keeping supply at pace with demand, restaurant employees, teachers, industrial workers, and other people who work in Malden will have a greater opportunity to also make a home here. Employers will find more workers who live locally, reducing commute times and traffic and supporting the local economy. Renting or buying a home in Malden will likely be more affordable.

²³ MAPC, "The Dimensions of Displacement: Baseline Data for Managing Neighborhood Change in Somerville's Green Line Corridor." February 2014.

Malden can withstand the pressures of the regional housing crisis, but only with decisive action that preserves the economic, racial and ethnic, and other diverse attributes of the community. This report provides context for and analysis of Malden's housing needs, and makes clear both the risks and opportunities facing the city and its leaders. By meeting the need for more Affordable and market-rate units, and by preserving existing Affordable units, the City can help residents stay in Malden and retain a diverse community.

APPENDIX

LAND CONSTRAINTS METHODOLOGY

Below is an explanation of the methodology used to assess constraints on land in Malden. MAPC classified every parcel in the city according to its ability to be re/developed. Each parcel was placed into one of the following five categories:

Class 1: Absolutely Constrained – This category comprises parcels that are not developable due to complete or significant coverage by water bodies, cemeteries, and public rights-of-way.

- Water bodies: MassDEP Hydrography, restricted to lakes, ponds, wide rivers, and impoundments (Poly_Code: 6)
- Cemeteries: MassGIS Protected and Recreational Open Space, restricted to cemeteries and burial groups
- Public rights-of-way: Standardized Level 3 Assessors' Parcels, restricted to right-of-ways (Poly_Type: ROW)

43

Class 2: Highly Utilized – This category comprises parcels that are utilized to, or close to, their maximum extent. Parcels in this category will approach their maximum build-out and/or have buildings that have recently been re/developed.

- Maximum build-out: MAPC Land Parcel Database, restricted to parcels buildings constructed 2010 or later
- Recently re/developed: MAPC Land Parcel Database, restricted to parcels where building value per square foot is \$121.55 or more (the highest 25% of per square foot values in Malden)

Class 3: Functionally Constrained – This category comprises parcels that have more barriers to re/development due to development costs and/or regulatory challenges. These features include environmental contamination and flood zones.

- Wetlands: MassDEP Wetlands, restricted to marsh and wooded swamps, (Poly_Code: 2 and 3) with a 100-foot buffer
- Flood Zones: FEMA National Flood Hazard Layer, restricted to A and AE (1% chance) and X (0.2% chance)
- BioMap 2: Core Habitat and Critical Natural Landscape

Class 4: Unknown Constraints – This category comprises parcels that could be re/developed under certain circumstances, but are not currently developable, such as parcels owned by the City of Malden or the State, and parcels with environmental contamination where the costs associated with redevelopment are unknown.

- AULS: MassDEP Oil and/or Hazardous Material Sites with Activity and Use Limitations (AUL) with a 150-foot buffer
- Chapter 21E: MassDEP Tier Classified Oil and/or Hazardous Material Sites with a 150-foot buffer
- Publicly-owned Parcels with Buildings: Standardized Level 3 Assessors' Parcels, restricted to "USE_CODE" = '900' OR "USE_CODE" = '901' OR "USE_CODE" = '903' OR "USE_CODE" = '908' OR "USE_CODE" = '980' OR "OWNER1" = 'MALDEN CITY OF' that have structures present.

Class 5: Relatively Unconstrained – This category comprises all remaining parcels.

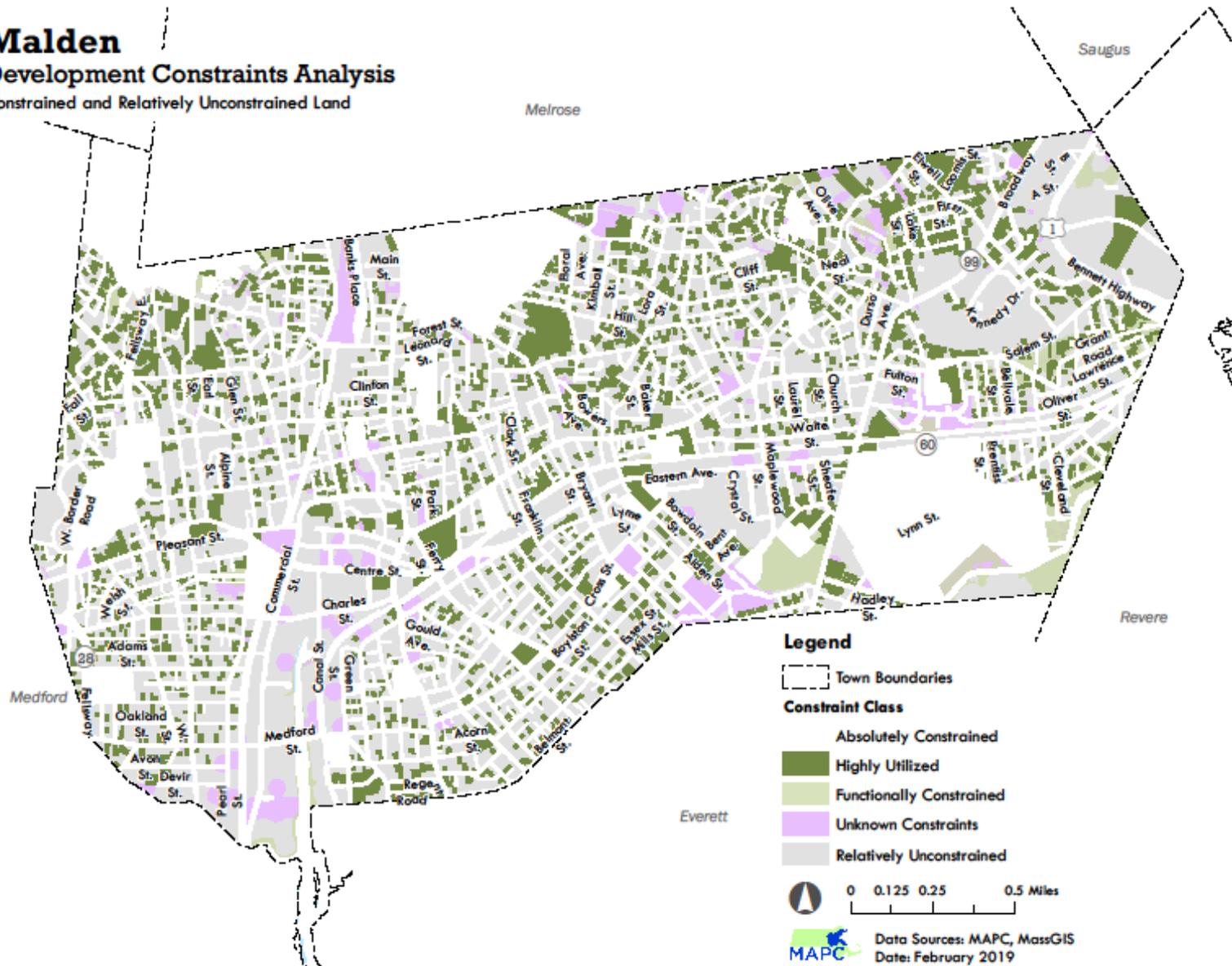
In the case where a parcel meets multiple criteria (for instance, the parcel is underdeveloped but intersects a wetland), it is considered under the more constrained classification option. Below is a map documenting the findings of this analysis.

Figure 18 Malden Development Constraints Analysis

Malden

Development Constraints Analysis

~Constrained and Relatively Unconstrained Land



TECHNICAL DOCUMENTATION OF GLAM

On January 30, 2019, MAPC's Data Services shared the Malden General Land Area Minimum analysis with the City. The technical process, detailed below, follows the exact documentation as prescribed by DHCD: <https://www.mass.gov/service-details/guidelines-for-calculating-general-land-area-minimum>.

I. Identify SHI Sites

As a first step, we created a spreadsheet detailing the Malden's SHI developments from a list given from DHCD. Using the list from DHCD, we created a list with the following attributes:

- **DHCD_ID:** Unique DHCD ID for each approved SHI development
- **ProjName:** Project Name. Not all developments may have a project name
- **Address:** Address of development except for Group Homes which are confidential
- **SHI_Units:** The total number of approved subsidized housing units for each development
- **Tenure:** Rental or ownership

The spreadsheet was sent to the city of Malden to disaggregate developments with multiple parcels. Each row in the spreadsheet must be associated with one parcel. The spreadsheet is named **GLAM_Malden_SHI_Sites.xlsx**.

In addition to disaggregating scattered sites by parcel, there are missing columns that are best filled out by the City of Malden:

- **NumParcels:** The total number of parcels associated with each development
- **TotUnits:** The total number of units in each development
- **LotUnits:** The total number of units on each parcel
- **LOC_ID:** Uniquely identifies a tax parcel polygon. This ID will be used to join the table to the Level 3 parcels shapefile

MAPC also asked for and received the most up to date Level 3 Parcels and CAMA spreadsheet from the assessor's office from Malden. The parcels were joined to the CAMA spreadsheet called **MAPC_Malden_CAMA.xlsx** based on the "GIS_ID" field in the shapefile and the "GIS_Link" field in the spreadsheet. The parcels were exported into the Malden GLAM geodatabase as **GLAM_Malden_Parcels.shp**.

For rows in the spreadsheet that had missing information, MAPC sent Malden any assumptions or suggestions for confirmation. MAPC worked directly with the City of Malden to ensure that the spreadsheet of SHI Sites is up-to-date and complete per DHCD guidelines. Once the spreadsheet of SHI sites was finalized, the spreadsheet was formatted for GIS use and renamed **GLAM_Malden_SHI_Sites_GIS_20190103.xlsx**. In this spreadsheet, two group home rows were removed since they are confidential and did not have any LOC IDs associated with them. Two Uptown Condominium rows that had the same development name, same DHCD ID, and same parcel LOC ID were combined. Finally, Glenwood Street development (DHCD #1778) was excluded from the analysis since it was not successfully matched to a parcel with identical units.

Some parcels contain multiple SHI developments/buildings:

- Parcel LOC ID: F_771529_2981619
 - DHCD ID 1774, 14-16 Clement Street
 - DHCD ID 1770, Clement Street
- Parcel LOC ID: F_777734_2979504

- DHCD ID 1764, 240-245 Newland
- DHCD ID 1764, 284-290 Newland
- Parcel LOC ID: F_782147_2982915
 - DHCD ID 1765, 24 Wolcott Terr
 - DHCD ID 1762, 630 Salem St.
 - DHCD ID 1768, 58 - 64 Westcott Street, Linden Family Development

The SHI list spreadsheet was joined to a copy of **GLAM_Malden_Parcels.shp** based on the LOC_ID field and only matching records were saved. The file was then exported as **GLAM_Malden_SHI_Sites.shp**. In total, 59 parcels comprise the new shapefile. A field attribute was created to calculate the total acreage for the parcels using the Calculate Geometry tool.

II. Calculate the Total Land Area in Malden

Municipal Boundary

Following the method outlined by DHCD, the total land area for Malden was calculated. Using the Level 3 Parcels from Malden, the parcels were dissolved in ArcMap to create a municipal boundary. The shapefile was then exported to the Malden geodatabase into a feature class called **GLAM_Malden_Dissolve.shp**. A field attribute was created to calculate the total acreage for Malden using the Calculate Geometry tool. The total acreage for Malden is **3,247 acres (Figure 1)**. **This includes areas that must be excluded.**

Water Bodies

Next we calculate areas for exclusion. For water bodies, per DHCD guidelines, MassGIS' MassDEP Hydrography (1:25,000) was used. The definition query "POLY_CODE IN (1, 6, 8)" was used to limit the polygon to reservoirs, oceans, ponds, lakes, bay, and wide rivers. The shapefile was then clipped to the Malden boundary and a field attribute was created to calculate the acreage of each water polygon within Malden. The resulting shapefile is called GLAM_Malden_Water (**Figure 2**).

Previously Registered Inland Wetlands

The DHCD guidelines state that for towns and cities with Previously Registered Inland Wetlands, their boundaries must be included for exclusion. However, according to the Department of Environmental Protection, Malden is not listed as one of the communities that has registered wetlands: <https://www.mass.gov/files/documents/2018/04/17/registered-wetlands.pdf>.

Zoning Areas

Total Land Area may exclude all areas in which any residential, commercial, and industrial uses are prohibited by the municipality's zoning bylaw or ordinance. A review of Malden's zoning bylaws reveals that the city does not have such a zoning restriction.

Figure 1: Malden Parcels and Subsidized Housing Sites



Malden Parcels and SHI Sites

- GLAM Malden_SHI_Sites
- GLAM Malden_Dissolve
- GLAM Malden_Parcels

*One parcel was excluded from this list of SHI sites due to a missing LOC ID.

The parcels that was excluded is:

Glenwood Street (DHCD #1778)

The total land parcel acreage in Malden is 3,247 acres, which include areas that count toward the Total Land Area for the General Land Area Minimum calculation, as well as areas that must be excluded.

The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

Produced by:
Metropolitan Area Planning Council
60 Temple Place, Boston, MA 02111
(617) 933-0700

Data Sources: MAPC, MassGIS, MassDOT

January 2019

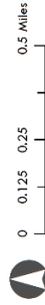
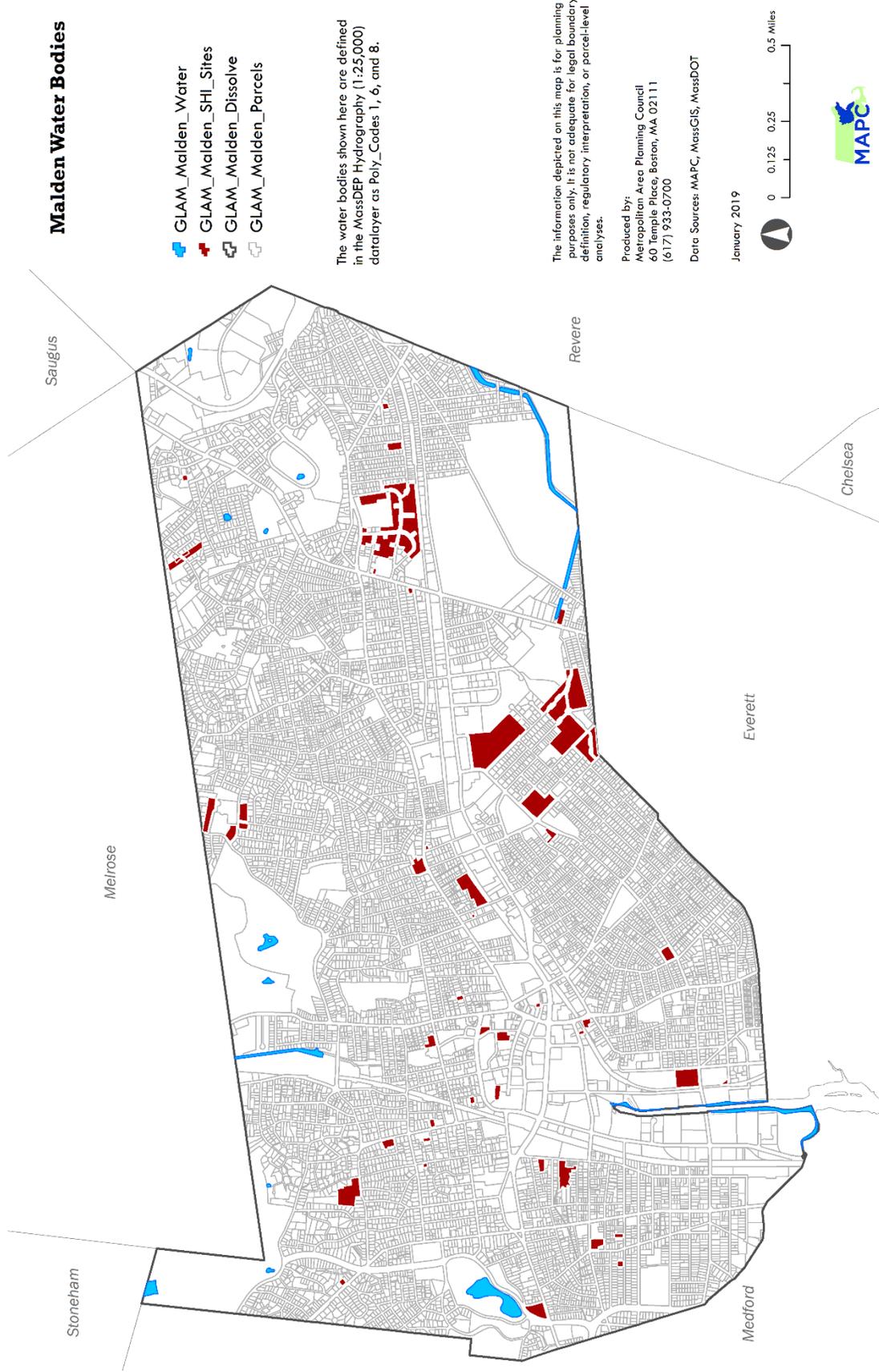


Figure 2: Malden Water Bodies



Removing Non-Parcel Excluded Areas from Total Land Area

The only excluded non-parcel based areas are water bodies. Using the “Erase” geoprocessing tool in ArcMap, **GLAM_Malden_Water.shp** layer was removed from the total land area and an output feature class was exported as **GLAM_Malden_Total_Land_Area.shp**. This feature class was then joined to **GLAM_Malden_SHI_Sites_GIS_20190103.xlsx** table and all features were retained.

Rights-of-Way were removed by adding a definition query to the **GLAM_Malden_Total_Land_Area.shp**:

```
NOT GLAM_Malden_Total_Land_Area.POLY_TYPE = 'ROW'
```

One parcel was found to be privately owned and was deselected from the exclusion, resulting in the

```
(NOT GLAM_Malden_Total_Land_Area.POLY_TYPE = 'ROW') OR  
GLAM_Malden_Total_Land_Area.LOC_ID = 'F_781136_2984369'
```

A map of the rights of way parcels can be seen in **Figure 3**.

To remove publicly owned land that is also not subsidized housing development, the following definition query was added:

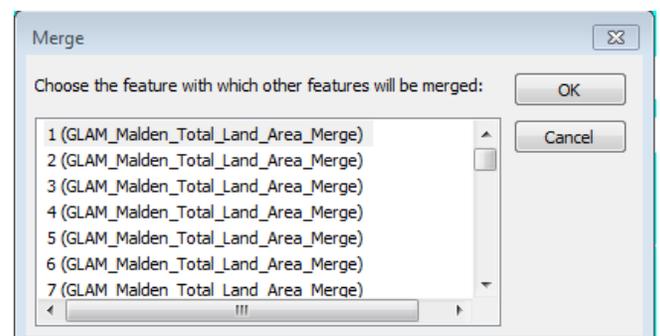
```
((NOT GLAM_Malden_Total_Land_Area.POLY_TYPE = 'ROW') OR  
GLAM_Malden_Total_Land_Area.LOC_ID = 'F_781136_2984369')
```

```
AND NOT (  
(GLAM_Malden_Total_Land_Area.LUC LIKE '90%' OR  
GLAM_Malden_Total_Land_Area.LUC LIKE '91%' OR  
GLAM_Malden_Total_Land_Area.LUC LIKE '92%' OR  
GLAM_Malden_Total_Land_Area.LUC LIKE '93%' OR  
GLAM_Malden_Total_Land_Area.LUC LIKE '97%' OR  
GLAM_Malden_Total_Land_Area.LUC LIKE '98%' OR  
GLAM_Malden_Total_Land_Area.LUC LIKE '991%' OR  
GLAM_Malden_Total_Land_Area.LUC LIKE '992%' OR  
GLAM_Malden_Total_Land_Area.LUC LIKE '993%' OR  
GLAM_Malden_Total_Land_Area.LUC LIKE '994%')  
AND "SHI_Malden$.MuniName" IS NULL)
```

The result is the total land area of Malden that will be used as the denominator. **Figures 4 and 5** show publicly owned land and the resulting total land area after ROW and publicly owned lands were removed.

GLAM_Malden_Total_Land_Area was then exported to a new feature class called

GLAM_Malden_Total_Land_Area_Merge. All other layers were turned off and the Editor tool was turned on. All features in the map display at full extent were selected. From the Editor Menu, Merge was selected and feature one was selected to merge all other features.



The total area for the new merged layer was calculated using the “Calculate Geometry” tool to determine the total land area.

With exclusions, the total land area for Malden is 2,029 acres (Figure 6).

Figure 3: Malden Public Rights of Way and Non-Parcel Based Exclusions (Water Bodies)

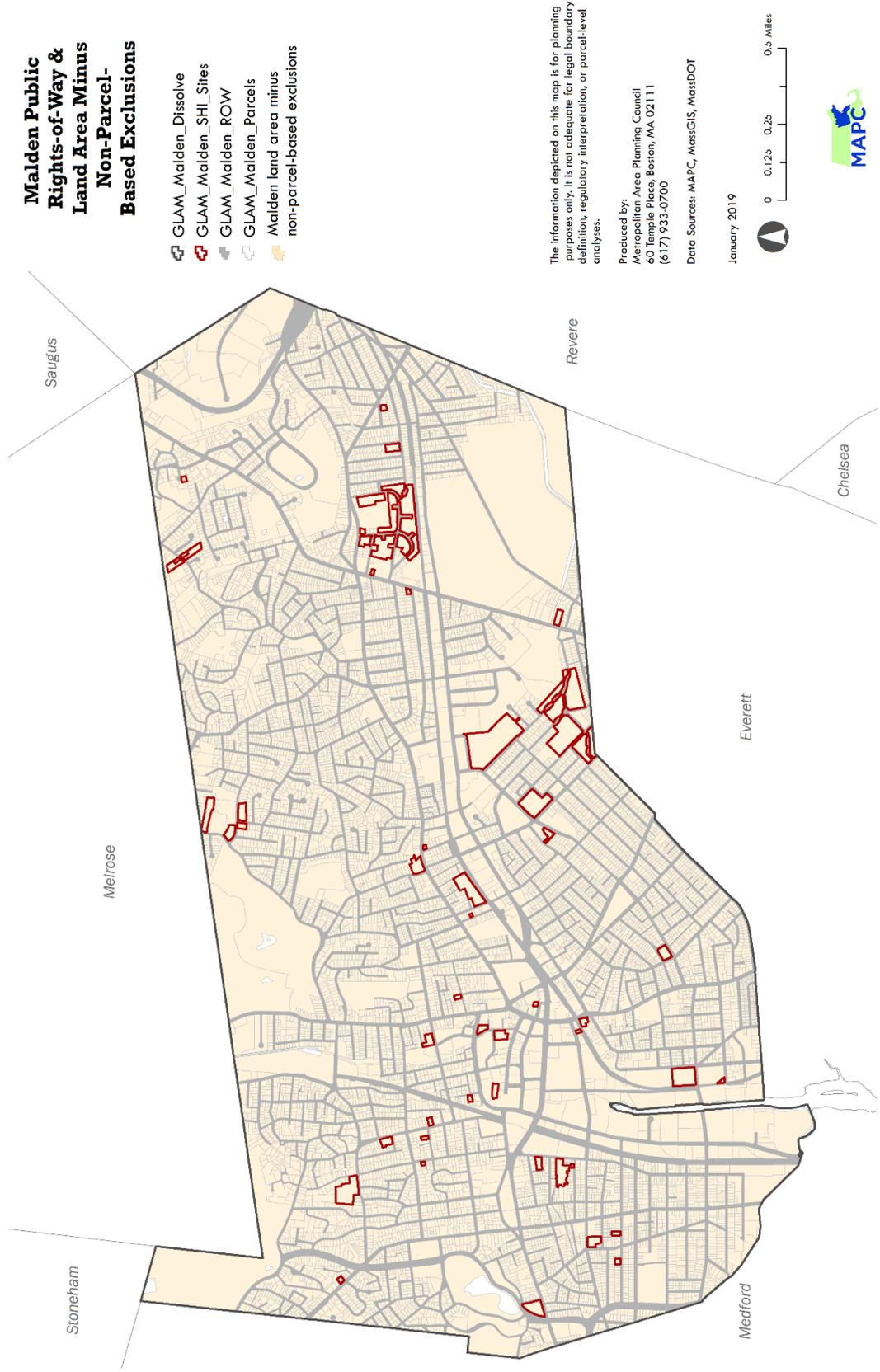


Figure 4: Malden Publicly-Owned Fee Parcels and Land Area Minus Other Exclusions

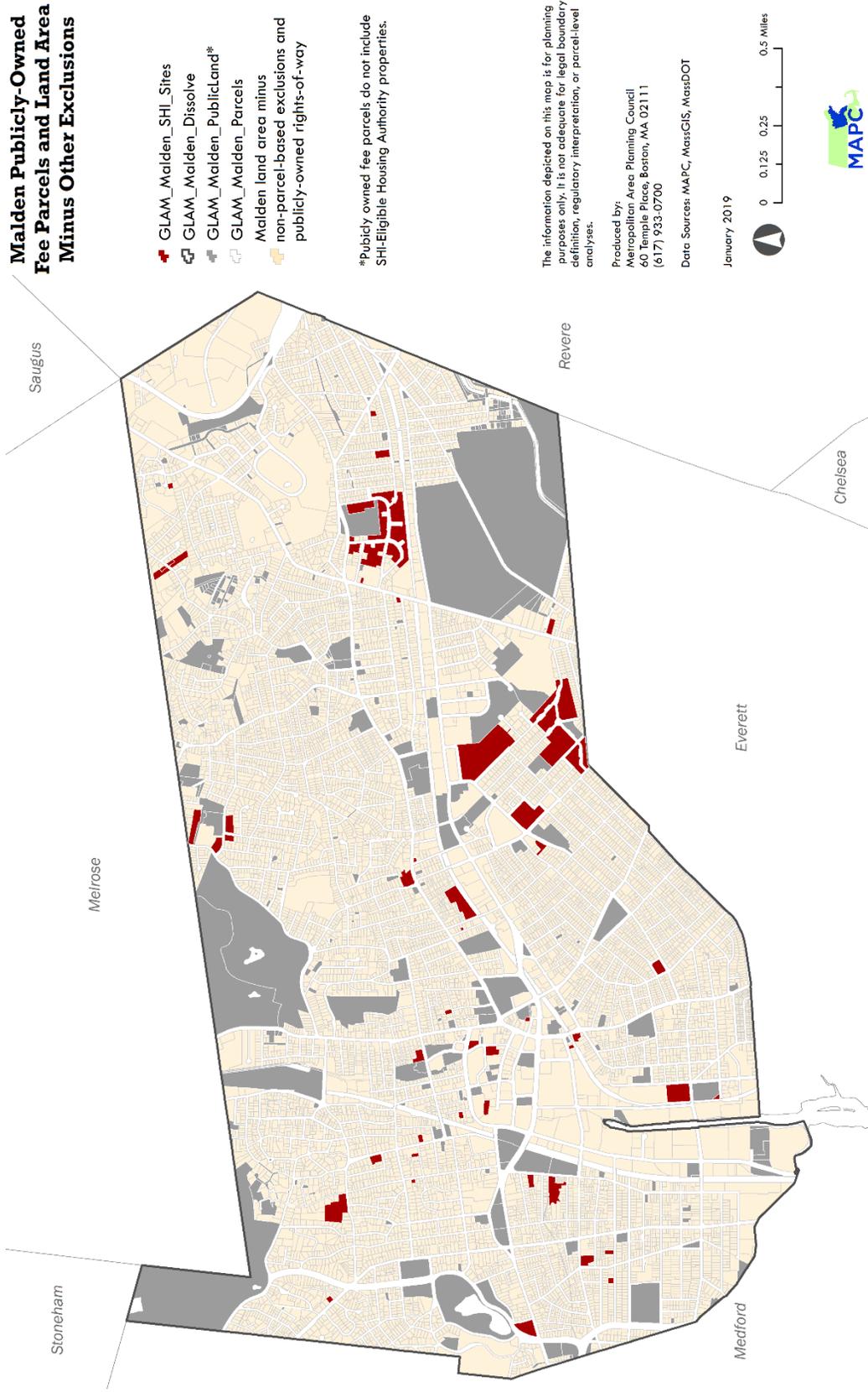


Figure 5: Malden Total Land Area Minus Exclusions

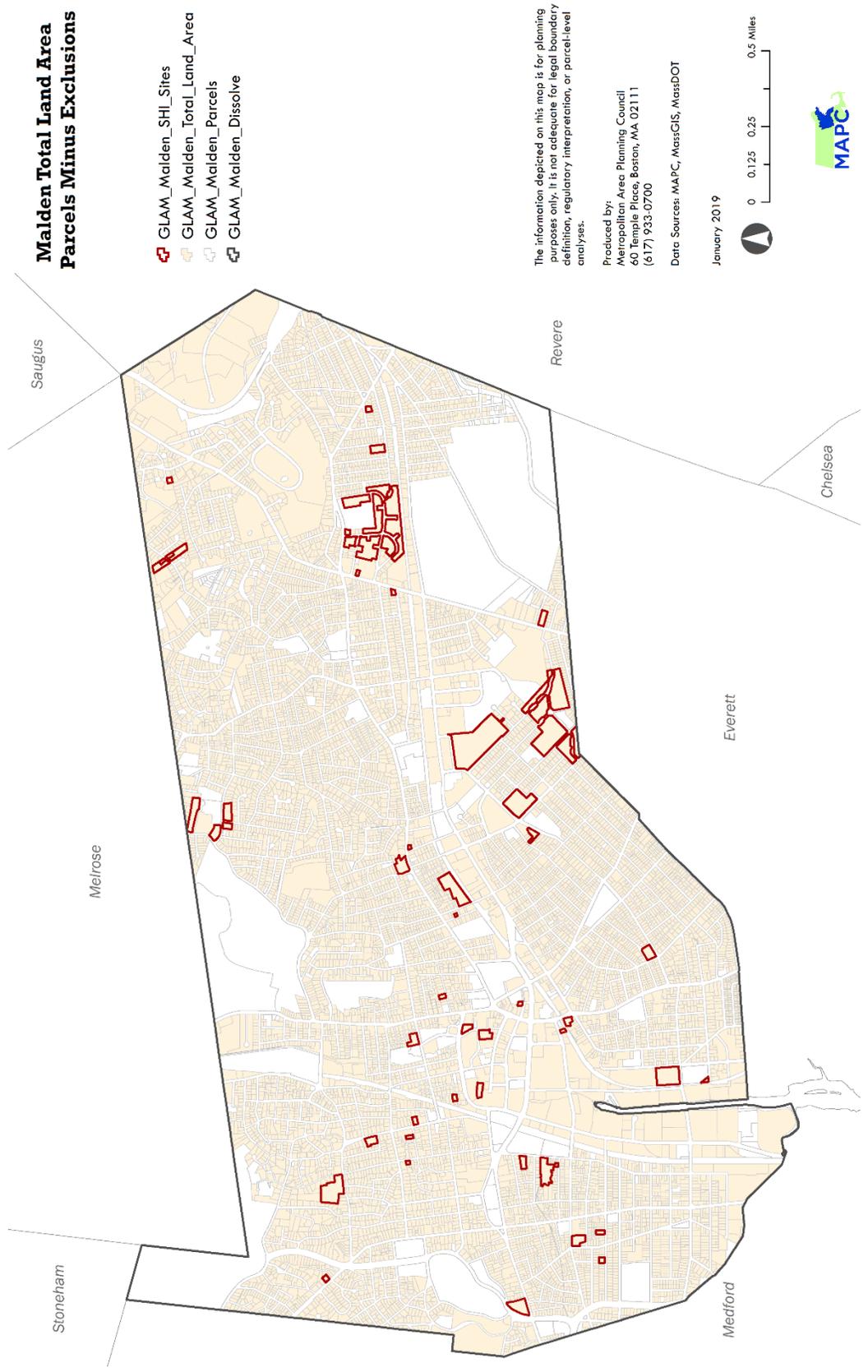
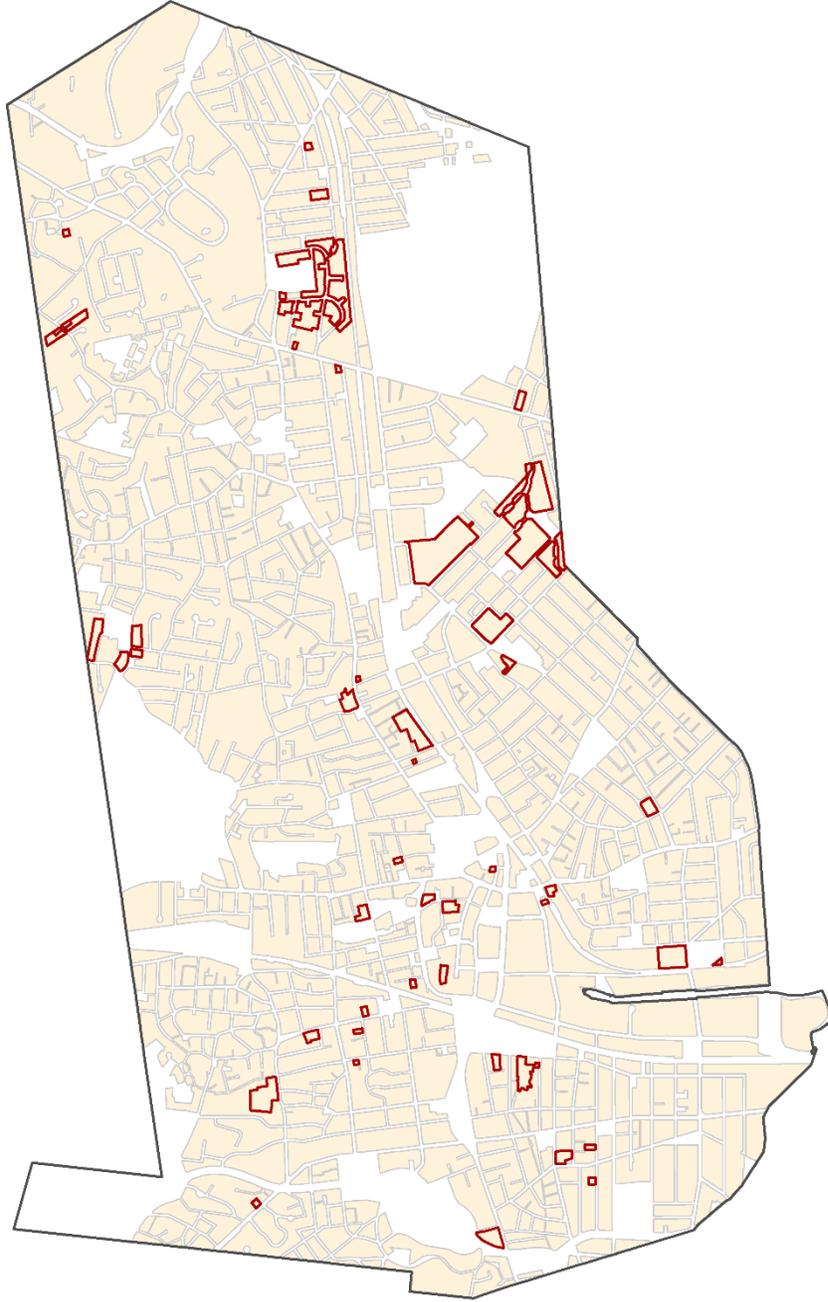


Figure 6: Malden Total Land Area Merged

Malden Total Land Area

-  GLAM_Malden_Tota_Land_Area_Merge
-  GLAM_Malden_SHL_Sites
-  GLAM_Malden_Dissolve

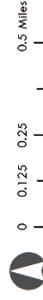


The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

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January 2019



III. Calculate SHI Eligible Area in Malden

The second part of the analysis is to reshape SHI parcels to ensure only parts of the parcel that are directly associated with subsidized housing units will count towards the parcel acreage. According to the guidelines, directly associated is defined as the portion of each parcel that is occupied by SHI eligible housing units including impervious and landscaped areas directly associated with the units. This section will provide a detailed summary of parcels edited to remove non-associated areas. The resulting areas were then prorated based on tenure and on the share of SHI Eligible Housing Units on the parcel.

Non-Associated Areas

The feature class GLAM_Malden_SHI_Sites was exported to a new feature class called GLAM_Malden_SHI_Sites_DA. In this feature class, each parcel was reviewed for non-associated areas, and using the Editor tool SHI polygons were modified to exclude areas that do not qualify as Directly Associated, such as heavily vegetated areas.

The SHI sites whose boundaries were changed are as follows:

Figure 7: Boundary Change for DHCD ID 9732: Salem Towers

1 parcel, 81 SHI rental units

Small modification to SHI Site boundary due to overlap with heavily vegetated area

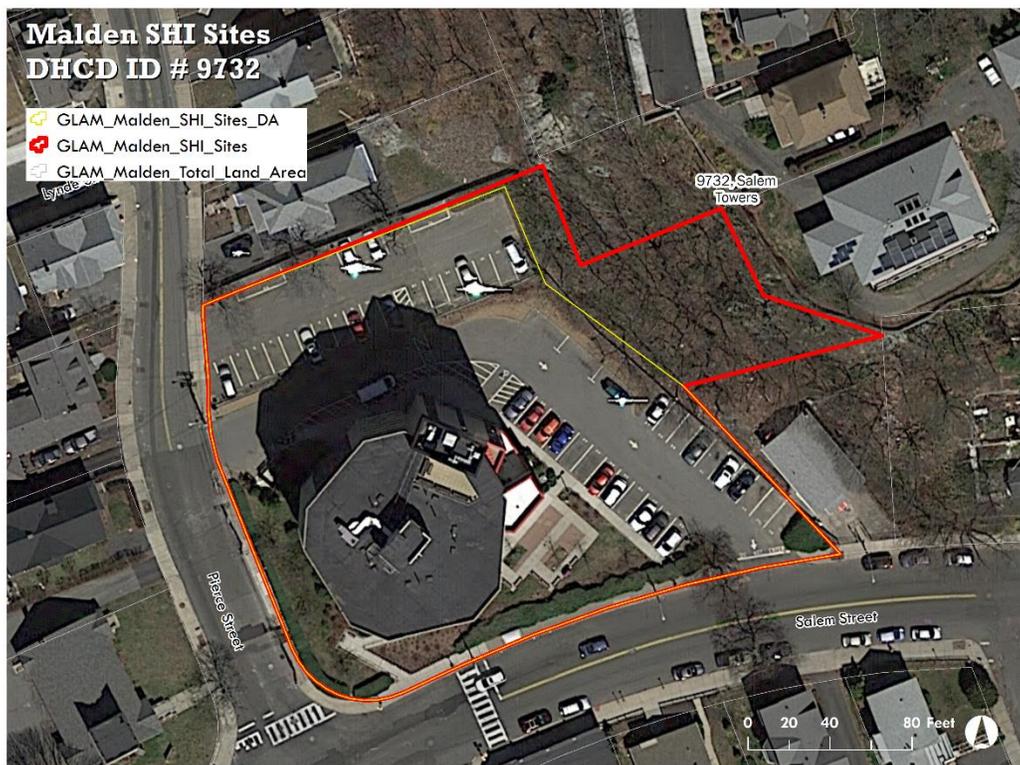


Figure 8: Boundary Change for DHCD ID 1763: 89 Pearl Street

1 parcel, 110 SHI rental units

Small modification to SHI Site boundary due to overlap with heavily vegetated area



Figure 9: Boundary Change for DHCD ID 1765: 118/120 Beachview and 117 Beachview
2 parcels, 3 SHI rental units
Major modifications to SHI Site boundary due to overlap with heavily vegetated area



Figure 10: Boundary Change for 145 Glenwood Street

1 parcel, 1 SHI ownership unit

Major modification to SHI Site Boundary due to overlap with heavily vegetated area



Calculating Prorated Areas & Results

In the **GLAM_Malden_SHI_Sites_DA** feature class, the total acreage for the parcels was recalculated using the Calculate Geometry tool. In the **GLAM_Malden_SHI_Sites_GIS_20190103.xlsx**, the new acreage was populated in a field called “Eligible Area.” Another field was created called “Percent Eligible.” Following DHCD guidelines, developments with ownership tenure were prorated based so that only the deed restricted low income housing units count towards the SHI area. The total area counts for rental units only if at least 25% or 20% of the units are to be occupied by Income Eligible Households earning at or below 80% or 50% of the area median income, respectively.

To calculate the prorated area, a new field titled “Prorated Area” was created in which the product is the “Eligible Area” X “Percent Eligible.”

The sum of the prorated area is the total SHI Eligible area, which forms the numerator of the final formula.

The final percentage is the Total SHI Eligible Area / Total Land Area, or $63.48/2,029 = 3.13\%$

3.13% is the City of Malden’s General Land Area Minimum percentage.